

RESEARCH PROJECT EXERCISES

PART



In the second component, a research development project is included that can be assigned to groups or individuals and completed throughout the course as students learn the steps in designing research studies. This component includes assignments related to choosing a research topic, conducting a literature review, developing a method, analyzing and interpreting results, and presentation of the project as an oral or poster presentation. These assignments progress through the topics in the course and thus can be assigned at different points in the course after different topics have been covered that allow students to continue in their development of the project.

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32. GETTING YOUR RESEARCH IDEAS FOR THE GROUP PROJECT

Write down two or three possible ideas for your group research project.

1.

2.

3.

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33. PICKING YOUR RESEARCH IDEA FOR THE GROUP PROJECT

Within your group, generate and discuss the research ideas you all generated. After ideas for the group projects have been presented and discussed, choose the project your group will conduct and write a brief description of the project that your group picked by answering the questions below. Be prepared to present your idea to the class.

What is your research question? Try to state it in the form of a question you will attempt to answer with your study.

Briefly describe the general method of your study (as much as you know at this point).

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34. BRIEF LITERATURE REVIEW FOR GROUP PROJECT DEVELOPMENT

Each member of the group must do a brief search of the literature and find at least two related research articles for the group project. List the full reference of the articles that you found below. Also bring a copy of each article to your group for discussion of the articles and their relevance to your project.

Reference 1:

Reference 2:

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35. GROUP PROJECT LITERATURE REVIEW

The goal of writing a research report is to inform and persuade the reader about the research. A critical part of the writing is to provide the reader with a good summary of what the issue is and what is and isn't known about the issue (i.e., past research). Using the collected background articles that your group project members assembled in the brief literature review you conducted earlier, put together an introduction and literature review. This should include

- A clear statement of the problem (issue), what it is, and why it is interesting/important
- A brief review of relevant past research (based on the articles that your group found)

Make sure that you link the problem/issue and the past research (i.e., How is the reviewed research relevant to your project?). Also make sure that the entire introduction and literature review fit together (i.e., it is not just a list of article summaries). Also spell check, grammar check, and so on. The entire document should be typed with double spacing and should adhere to APA-style guidelines. Additionally, I'd like you to turn in a copy of your reference section (all of the articles that you cited in your introduction/literature review).

Literature Review Checklist

<i>Key Points</i>	✓	<i>Brief Comment</i>
Content		
Introduction		
Problem of interest	<input type="checkbox"/>	
Link between problem and past research	<input type="checkbox"/>	
Summarize the past research	<input type="checkbox"/>	
Describe the basic purpose of the current experiment	<input type="checkbox"/>	
Describe hypotheses (conceptual level IV and DV)	<input type="checkbox"/>	
Writing		
Overall clarity	<input type="checkbox"/>	
APA style	<input type="checkbox"/>	
Grammar	<input type="checkbox"/>	
Spelling	<input type="checkbox"/>	
Total Summary Grade	_____ %	

36. VARIABLES IN YOUR GROUP PROJECTS

State your tentative hypothesis for your group project.

Will your study include independent variables?

If so, what is/are your independent variable(s) (at a conceptual level)? How do you plan to manipulate your independent variable(s)? How is/are your independent variable(s) operationally defined?

What is/are your dependent measure(s)? How will you measure it/them?

What confounding variables will you need to control? Why?

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37. MOCK INSTITUTIONAL REVIEW BOARD FORM

Complete the following IRB protocol form for the project you designed in your group.

I. General Information

A. Protocol Information
Protocol Title:
B. Principal Investigator Information (list the members of your research group)
Principal Investigators:

II. Principal Investigator Assurance

As **Principal Investigator**, I certify that to the best of my knowledge the following are true:

1. The information provided for this project is correct.
2. No other procedures will be used in this protocol.
3. I agree to conduct this research as described in the attached supporting documents.
4. I will request and receive approval from the IRB for changes prior to implementing these changes (including but not limited to changes in cooperating investigators, as well as any changes in procedures).
5. I will comply with the IRB and university policy for the conduct of ethical research.
6. I will be responsible for ensuring that the work of my co-investigator(s)/student researcher(s) complies with this protocol.
7. Any unexpected or otherwise significant adverse events in the course of this study will be promptly reported to the Research Office.
8. In the case of student research, I assume responsibility for ensuring that the student complies with university and federal regulations regarding the use of human subjects in research.

Principal Investigator Signatures

Date

III. Protocol Description

- A. Provide a *brief* description, in *layman's terms*, of the proposed research.

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B. Methodology**1. Participants**

- a.**
- How many participants will be included in the study?

Number: Male _____ Female _____ Total _____

Age range: _____ to _____

- b.**
- Where will participants be recruited from?

- c.**
- How will they be recruited?

- d.**
- Procedure for securing informed consent

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2. Procedure

a. What are you asking the participants to do?

b. Will you involve them in deception, or a biomedical procedure?

c. Will you audio- or videotape them (if yes, indicate which one)?

3. Instruments/Apparatus

What forms, surveys, equipment, and so on will you use? (Attach a copy of all forms, surveys, and instruments to be used.)

4. Data

a. How will the data be stored and kept secure?

b. Who will have access? How will the data be used (during and after the research)?

c. How will the data be disposed of?

A. Risks

1. What are the physical, psychological, or social (loss of reputation, privacy, or employability) risks?

2. Will the data be anonymous or confidential?

B. Benefits

1. What do you hope to learn?

2. Who might find these results useful?

3. For what purpose?

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38. PILOT OF RESEARCH PROJECT

An important part of the research process is to “try out” your study in advance of data collection. Piloting the methods allows researchers to try out things (e.g., your materials, your procedures, your instructions, your sampling procedures) and to get feedback from participants (researchers can also act as participants to gain insightful feedback). For your group projects, you should conduct a “practice run” of your entire method (using either group members or naive, nonclass volunteers).

Based on your pilot, answer the following questions:

- How long does the entire procedure take?
- Were there any demand characteristics? What comments did the participants have about the study? Did they have predictions about what the study was about?
- Did the materials work? Did the instructions work?
- Other comments/observations
- Based on the pilot, what changes (if any) need to be made?

39. STATISTICAL ANALYSES FOR YOUR GROUP PROJECT

What is the design of your study? Will you compare group mean scores or examine a relationship between variables?

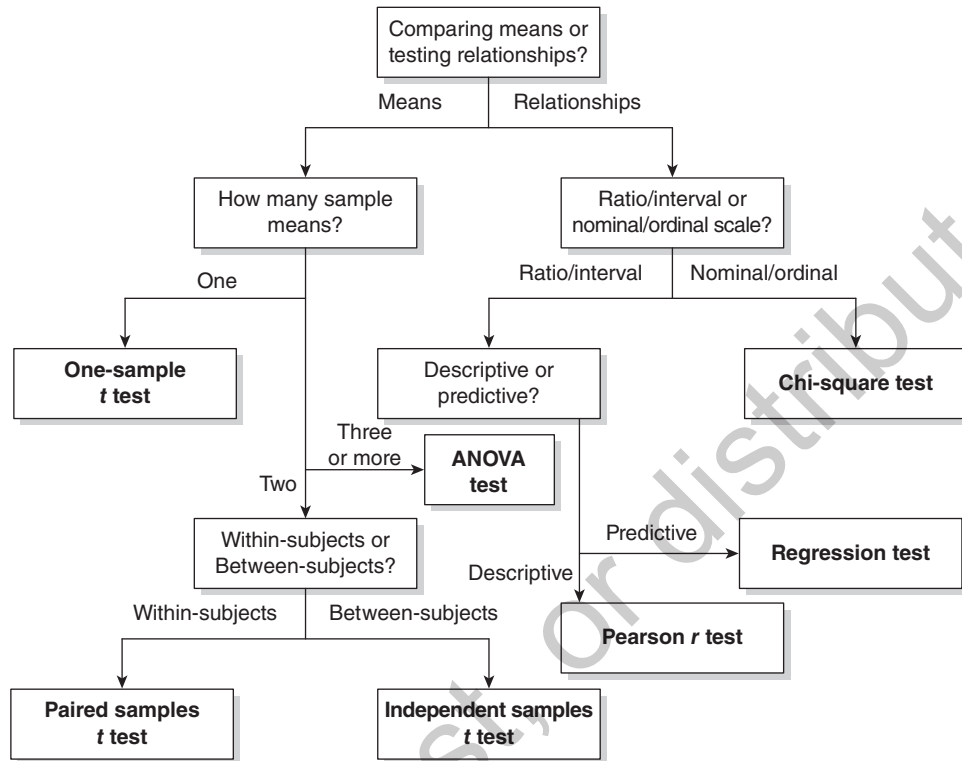
Describe how you will organize your project data so that you will be able to perform the appropriate descriptive and inferential statistics.

What descriptive statistics do you plan to use?

What inferential statistics do you plan to use? (Remember that the design of your study will largely determine what inferential statistical procedures you will use.)

40. GROUP PROJECT DATA ANALYSIS EXERCISE

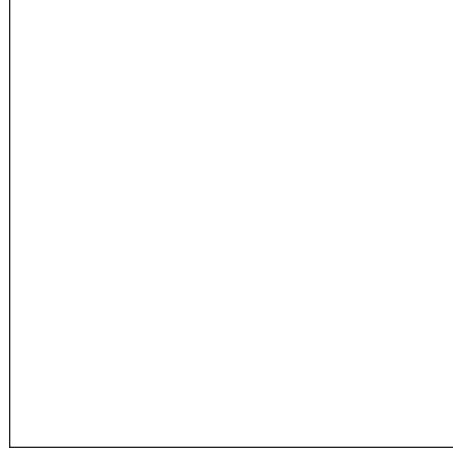
Part I: Use the decision chart below to decide what the best statistical analysis is for your data.



1. Is your research question about comparing means from different conditions or about testing a relationship?
2. If you are comparing means, how many sample means do you have?
3. If you are testing a relationship, did you use a ratio/interval scale or a nominal/ordinal scale to collect your data?
4. If you have only two sample means, did you conduct a between-subjects or within-subjects study?
5. If you used a ratio/interval scale, is your research question descriptive or predictive?
6. What statistical test should you use to analyze your data?

Part II: Use the template below to graph your data. If you used a correlational design, you should create a scatterplot. If you used an experimental or quasi-experimental design, you should create a bar graph or line graph of the means for the conditions in your study.

FIGURE 13 ■



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41. GROUP PROJECT METHODS SECTION

The goal of writing a research report is to inform and persuade the reader about the research. A critical part of the writing is to provide the reader with a clear summary of what was done in the research. Your Method section should include all the subsections of the Method section (e.g., participants, design, procedure). Make sure that you clearly identify your variables (dependent, independent, and control) and how you intend to measure and/or manipulate them. Also spell-check, grammar check, and so on. The entire document should be typed with double spacing and should adhere to APA-style guidelines.

Method Section Review Checklist

<i>Key Points</i>	✓	<i>Brief Comment</i>
Content		
Method (APA subsections)		
Participants (if you haven't run any yet, give a numerical estimate)	<input type="checkbox"/>	
Design	<input type="checkbox"/>	
Materials	<input type="checkbox"/>	
Apparatus (if appropriate)	<input type="checkbox"/>	
Procedure	<input type="checkbox"/>	
Variables		
Dependent	<input type="checkbox"/>	
Independent	<input type="checkbox"/>	
Control	<input type="checkbox"/>	
Writing		
Overall clarity	<input type="checkbox"/>	
APA style	<input type="checkbox"/>	
Grammar	<input type="checkbox"/>	
Spelling	<input type="checkbox"/>	
Total Summary Grade	_____ %	

42. GROUP PROJECT RESULTS SECTION

The goal of writing a research report is to inform and persuade the reader about the research. A critical part of the writing is to provide the reader with a clear summary of what was found. Your Results section should include all the descriptive and inferential statistics, including graphs and relevant tables. The entire document should be typed with double spacing and should adhere to APA-style guidelines.

Results Section Checklist

<i>Key Points</i>	✓	<i>Brief Comment</i>
Content		
Results		
Descriptive statistics	<input type="checkbox"/>	
Inferential statistics	<input type="checkbox"/>	
Tables and graphs	<input type="checkbox"/>	
Writing		
Overall clarity	<input type="checkbox"/>	
APA style	<input type="checkbox"/>	
Grammar	<input type="checkbox"/>	
Spelling	<input type="checkbox"/>	
Total Summary Grade	_____ %	

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43. GROUP PROJECT DISCUSSION SECTION

The goal of writing a research report is to inform and persuade the reader about the research. A critical part of the writing is to provide the reader with a clear summary of what was found, why it is important, and how it relates to the previous research in the area. Your Discussion section should include a restatement of your hypotheses, whether the hypotheses were supported or not, and which results are relevant to your hypotheses. In addition, you should compare your results to previous studies in the area and summarize the contribution of your study. The entire document should be typed with double spacing and should adhere to APA-style guidelines.

Discussion Section Checklist

<i>Key Points</i>	✓	<i>Brief Comment</i>
Content		
Discussion		
Were the hypotheses supported or rejected?	<input type="checkbox"/>	
What are the implications of the results?	<input type="checkbox"/>	
Discussion of possible alternative explanations	<input type="checkbox"/>	
Future directions	<input type="checkbox"/>	
Conclusions	<input type="checkbox"/>	
Writing		
Overall clarity	<input type="checkbox"/>	
APA style	<input type="checkbox"/>	
Grammar	<input type="checkbox"/>	
Spelling	<input type="checkbox"/>	
Total Summary Grade	_____ %	

44. GROUP PROJECT ABSTRACT

The goal of writing a research report is to inform and persuade the reader about the research. The abstract is a brief summary of the article, allowing the reader to know what was done without reading the entire article. It is often the “first contact” that readers have with an article (e.g., it is often included in searchable databases such as PsycINFO). As is the case with the rest of the article, clarity is a critical part of the writing. The summary should include brief statements of the issues, the methods used, the results, and the conclusions. The entire abstract should be no more than 120 words in length. The entire document should be typed with double spacing and should adhere to APA-style guidelines.

Abstract Checklist

<i>Key Points</i>	✓	<i>Brief Comment</i>
Content		
Main point of the research	<input type="checkbox"/>	
Relevant participant information	<input type="checkbox"/>	
Basic methodology used	<input type="checkbox"/>	
Main results	<input type="checkbox"/>	
Conclusions	<input type="checkbox"/>	
Writing		
Overall clarity	<input type="checkbox"/>	
APA style (including appropriate length)	<input type="checkbox"/>	
Grammar	<input type="checkbox"/>	
Spelling	<input type="checkbox"/>	
Total Summary Grade	_____ %	