

A Guide for Writing the Master's Research Project

The purpose of this guide is to present an outline for writing a research project or thesis for a Master's Degree in the College of Education. This guide will help to show that what seems an enormous task is manageable if broken up into smaller pieces. Be aware that the recommendations presented here may not agree with what individual advisors require, and therefore, consultation with them may be necessary. In addition, this guide will use the term project instead of thesis because the majority of students in the College of Education choose the project option. However, much of the information presented here will apply to the thesis option as well. Finally, the single best recommendation for completing the master's project is to start writing. Get as much written in EDCO 221 as possible.

Overall Structure for the Master's Research Project

Usually, the completed project has five chapters. The word "chapter" sounds scary, but each chapter has a specific purpose that helps to guide the writing. It is useful to work on one chapter at a time, and not necessarily in a sequential order. Start with a portion where the writing seems the clearest or easiest to complete. Remember that the first goal to completing the project is to start writing.

The five chapters are usually named Chapter I: Introduction; Chapter II: Review of Literature; Chapter III: Methodology; Chapter IV: Results; and Chapter V: Summary, Conclusions, and Recommendations. Following Chapter V, there is a section called References, and maybe a section called Appendix, although, all projects may not have an Appendix. Before Chapter I, there will be a title page, signature page, table of contents page, and perhaps optional acknowledgment and/or dedication pages. Descriptions of each chapter appear in more detail below, but first, a word about the writing style of the American Psychological Association (APA).

APA format for writing. This guide assumes use of the writing style of the current Publication Manual of the American Psychological Association (2001) to prepare the final written project. The APA manual is available at the Spartan Bookstore, but it may not be necessary to buy it since this guide should present most of what is necessary to complete the writing. The main concerns with APA format for the project are: how to give credit to other authors' ideas in the project text; how to correctly cite authors' works in the Reference section; how to construct Tables to summarize data; and how to use the correct levels of headings throughout the write up. Descriptions of each of these will appear as they come up in each of the chapters below.

APA formats for headings and subheadings. The use of headings and subheadings helps organize the writing and to make it easier to read the finished project. APA suggests five levels of headings to help organize the writing. They are as follows:

Centered Uppercase and Lowercase Heading	{Level 1}
<i>Centered, Italicized, Uppercase and Lowercase Heading</i>	{Level 2}
<i>Flush Left, Italicized, Uppercase and Lowercase Side Heading</i>	{Level 3}
<i>Indented, italicized, lowercase paragraph heading with a period.</i>	{Level 4}

(APA, 2001, p.

113)

APA suggests the following choice of headings depending on the number of headings used. For a single heading, use Level 1. For two levels of headings, use Levels 1 and 3. For three levels of headings, use Levels 1, 3, and 4. For four levels of headings, use Levels 1 through 4. For five levels of headings, use all five levels using the sequence of Level 5, 1, 2, 3, and 4. Most projects use three levels of headings. Also, be aware that the levels of headings need to be consistent from chapter to chapter. Since work on each chapter often occurs separately and at different times, it is common to find inconsistent use of headings, format, and fonts from chapter to chapter. At some point, go back through the entire write up to check for consistencies on all of these. Notice the use of Levels 1, 3, and 4 in this guide so far.

Chapter I

{notice use of 2 level 1 headings}

Introduction

The purpose of Chapter I is to introduce the research topic for the present project. The chapter has specific subheadings. However, before the first subheading, the writing begins with a broad overview of what the topic is and why it needs researching in the first place. In a couple of pages or so, describe the nature of the problem at the regional, national or international level, a short history, any relevant statistics to support the existence of the problem such as national census data or previous research on the topic. For example, if the present research topic is the study of at risk youth, Chapter I might begin with a broad national description of the issue of at risk youth with supporting national data that the problem exists. When citing data or research from other sources, be brief and give the reference in APA format (that is, authors last names, and year of publication in parentheses). There will be a more detailed description of

this aspect of APA format in the Chapter II section below. It is acceptable to use the same literature in both Chapters I and II, but presented briefly in Chapter I and in more detail in Chapter II.

Having made a general justification for the existence of the problem at the regional, national, or international level, the writing now concentrates on the specific aspect of the broad problem that will be the focus of the present research project. This leads to the first subheading described next.

Background

{notice use of Level 3 heading}

This section describes how the research problem described broadly above is present in the specific setting of the present research (for example, a specific school or school district). Give supporting local data that the problem exists in this setting (for example, District data on dropout rates for the last five years). In addition, this section briefly describes the physical setting (the school) and population (the students) that will produce the research sample. This section is not lengthy (about one page or so). Simply make the points to support the existence of the problem and go on to the next section. If the research will not have a specific setting as described above (for example, the research will use a random sample of college freshman from an Introduction to Psychology course), there may not be a background to describe. Under these circumstances, skip this subsection of Chapter I. Simply go on to the next section.

Problem Statement

{notice use of Level 3 heading}

The purpose of this section is to state the one problem that will be the focus of the present research. What is the one question about this topic that needs an answer? The problem identifies a specific, documented, researchable "predicament" based on the evidence provided above. It is a continuation of that information presented above in the broad opening paragraphs and background section, but narrowed to one specific problem.

In a sentence or two, summarize the evidence given above to state one specific problem. The goal is to be as specific as possible and to delineate the variables studied. This section states a problem that needs an answer, but does not say how to answer it. That comes later in the Purpose section. An example of a problem statement using the at risk youth topic might be:

Evidence shows that 45% of the students at Summerhill Elementary School received three or more failing grades in the present grading period that represents an increase of 75% from the previous grading period (Put a reference here in parentheses to support the source of this data).

Notice that this problem statement raises a question that cries for an answer, but suggests no solution. It sometimes may not be possible to be as specific as this example, but do try to be as specific and narrow as possible given the available evidence. Also, include explanations of any relevant variables that might not

be clear. For example, who are the students at Summerhill, what are the courses, and how long are the grading periods might need more explanation. This section will be about one to three paragraphs long.

Purpose Statement

{notice use of Level 3 heading}

The purpose of this section is to state how your study will try to answer the question raised in the problem statement. It specifies the goals and measurable objectives of the present research. This section is relatively short. It uses the phrase "It was the purpose of the present study to..." and specifically states the people studied (the participants), the measures used (survey, questionnaires, etc.), and the steps used to complete the research (the procedure). Describe the action necessary to complete the study.

The purpose statement will be even more specific or narrow than the problem statement. For example, the problem statement may specify that the failing grades occurred in grades 2 through 8, but the present study may decide to only study the 7th and 8th grades because of the urgency of doing something for these students before they go on to high school. An example of a purpose statement might be:

It was the purpose of the present study to mail (the procedure) a survey (the measure) to a random sample of the 7th and 8th grade Summerhill Elementary School households (the participants) to determine the nature of students' study habits (what the survey will measure).

Notice that this purpose statement is more specific and narrow than the problem statement above. Some clarification will be necessary to explain why the study included only 7th and 8th grade students, and why the focus is on student study habits at home. This later explanation may require briefly mentioning previous research in support of the decision. Remember though that this section is not lengthy, one or two paragraphs.

Hypotheses or Research Questions

{notice use of Level 3 heading}

The purpose of the next section is to list the hypotheses or research questions. Normally, a study will not use both. Therefore, the Level 3 heading for this section will be either *Hypotheses* or *Research Questions*.

Hypotheses are strong hunches that the research will empirically attempt to test statistically. Wording includes stating the variables compared and how tested. For example:

The 7th and 8th grade students from Summerhill Elementary School households who provide a structured study area at home will have significantly higher mean grade point averages than those 7th and 8th grade students from Summerhill Elementary School households who do not provide

a structured study area at home as measured by grades received in all 7th and 8th grade core courses.

Notice this example identifies two specific groups (do or do not provide a structured study area), the criteria and direction for the measure (significantly higher mean grade point averages), and the measure used to test for mean differences between groups (grades received in all 7th and 8th grade core courses). Often, there is not enough information to be able to form hypotheses, or the nature of the study does not provide for it. In these circumstances, use research questions instead.

Research questions help to direct the course of the research. They are extensions of the problem and purpose statements worded in an open-ended form (that is, not answered yes or no). Be certain that the questions are answerable by the present research. Answers for some of the questions will come from the data collected in the research, but some may come from the literature review in Chapter II. Both sources are acceptable. Some examples:

What are the theories that explain the origins of becoming an at risk youth? {Probably answered from Chapter II}

What are the definitions of at risk youth? {Probably answered from Chapter II}

What role do sociological and economic factors play in becoming an at risk youth? {Probably answered from Chapter II and maybe Chapter IV}

What are the behavioral characteristics of an at risk youth? {Probably answered in Chapter II & IV}

What role does the family play in encouraging and maintaining the at risk youth behavior? {Probably answered from Chapters II & IV}

What role does providing a structured study area at home play in becoming an at risk youth? {Probably answered from Chapter IV}

There are probably several more questions in this study. Notice how these questions help to define the problem and purpose of the study in more detail. Partial answers to the first four questions may come from the literature review (Chapter II) and therefore they help to start the organization of that chapter. However, the current study may also provide specific answers to the fourth, fifth, and sixth questions concerning the Summerhill school population. Remember, listing both hypotheses and research questions means that these sections are short.

Definition of Terms

{notice use of Level 3 heading}

The purpose of this next section is to provide definitions of any terms used in the present research that may not be in common use or used in this research in an uncommon way. Assume that the readers of this research will be knowledgeable fellow professionals so that commonly used technical

terms do not need defining. If there are no terms that need defining, omit this section. Simply begin this section

with a variation of the following sentence: "For the purposes of carrying out the present research, the study used the following definitions:". Then simply list (without numbering them) each term in alphabetical order using a level 4 heading followed by the definition. If a definition is from a particular source, cite the source in parentheses at the end of the definition using APA format.

Assumptions

{notice use of Level 3 heading}

The purpose of this next section is to explain any factors assumed operating to carry out the present research. Simply list them without explanation. The format and examples are:

In order to conduct this research, this study assumed that:

Prompt completion and return of the mailed surveys by the randomly selected Summerhill households.

The randomly selected Summerhill households would respond to the survey to the best of their ability.

Limitations

{notice use of Level 3 heading}

The purpose of this and the next section is to list any restrictions or restraints that might be operating in completing the research. Limitations are any circumstances beyond the control of the research design. Delimitations are restrictions imposed by the research design. A study may have one or the other or both. When using both, list each under its separate level 3 heading. Use the following format for limitations:

In order to conduct this study, the following limitations were beyond the control of the research design:

Some Summerhill households may choose to not complete or mail the survey.

Some Summerhill households may not provide or are not able to provide a study area for their child and therefore may not be completely honest in their responses to the survey due to embarrassment.

Delimitations

{notice use of Level 3 heading}

Use the following format for delimitations:

In order to conduct this study, the research design imposed the following delimitations:

Although students in grades 2 through 8 are at risk for failing grades, the present study focused only on the 7th and 8th grades.

Use of a mail survey instead of a face to face interview provided for sensitivity to the privacy needs of some Summerhill households.

Significance Statement

{notice use of Level 3 heading}

This is the final section of Chapter I. The purpose of this section is to explain what and how completing this study might contribute to the target professional and larger communities. What importance or relevance might the results of the study have for Summerhill families and families in general; for Summerhill students and students in general; for Summerhill teachers, counselors, and administrators and teachers, counselors, and administrators in general; and for the larger community including police, and youth workers? This section describes how the study's results might be beneficial. It is not a long section, maybe a paragraph or two. Although the number of pages in Chapter I is not an issue, it usually runs about 8-10 double spaced pages.

Finally, some final comments about using personal pronouns, gender, and verb use when writing up the research project. Assume that the study is doing the talking. Use personal pronouns such as "I and we" to refer to yourself for clarity. Do not use the word "researcher" because it is usually redundant. Attempt to write gender neutral unless referring to a specific gender. Use active voice instead of passive voice (for example, use "participants completed surveys" instead of "surveys were completed by participants"). There is a helpful web site showing how to change passive to active voice at http://owl.english.purdue.edu/handouts/grammar/g_actpass.html The final write up of the project occurs after completion of the study. Thus, most of the writing is in the past tense (for example, The purpose of the study was; participants responded). Research proposals use the future tense. Therefore, at some point, an editing to past tense is necessary. It may simply be easier to start out writing in past tense if it is OK with individual advisors. Check it out.

Chapter II

{Both Level 1 headings}

Review of Literature

This section of the guide will first describe the purpose and structure of Chapter II, and then cover additional information about APA format particularly useful in this chapter. Remember that each new chapter starts on a new page.

Purpose and Structure of Chapter II

{Level 3 heading}

The purpose of Chapter II is twofold: to summarize the previously published theory and research studies about the present research topic, and to assist in the design and completion of the present study. The intent of this chapter is to show the previously published studies on the current research topic. What have others said about the topic? What theories apply and what do they say? What is the research? Are there consistent findings or do the past studies disagree? Are their weaknesses in the previous studies that need attention? Use this information to help design and carry out the present study. Some project advisors recommend starting with this chapter before writing Chapter I. Either will work. Two suggestions for getting started on this chapter are: go to the library, and start writing.

There is not a specific outline to follow as in Chapter I. The specific organization of this chapter will grow out of the nature of the literature available. This sometimes makes writing this chapter more difficult. Look for ways to organize this chapter by noting how the authors of the literature you include in this review organized their literature. Consider this chapter similar to a long term paper written for another class. With that thought in mind, there may be the beginnings of a literature review hidden in one of those previously written papers. Check it out.

There are two broad categories of information included in this chapter: theories, and research studies. Theories try to present explanations for the observations about the research topic. In the at risk youth study, it might be useful to include a brief summary of the theories of adolescent development as a way to explain the development of at risk youth behavior. This information can assist in the development of the questions for the survey that Summerhill School households will complete. The second broad category is a summary of the research studies previously completed on the current topic. Give a brief summary of the research including who did the study (authors), what was the purpose, who were the participants, what was the procedure, what were the findings, and how do the findings contribute or relate to the present study?

How to begin. Start Chapter II with a brief, one paragraph restatement of the problem statement and the purpose statement. Next, present the organization of the chapter by listing the major topic headings used in the subsequent presentation of literature. Then present the literature. End the chapter by showing how all the reviewed literature relates back or contributes to the problem and purpose of the present study. Do use headings and subheadings to organize the presentation of the chapter. Let the nature of the literature dictate the headings. Restate the problem and purpose statements at the beginning of the chapter so the reader does not need to refer to Chapter I. Begin Chapters III, IV, and V in the same way for this reason. The restatement each time may be the same words or a paraphrase.

More on APA Format

{Level 3 heading}

Chapter II is the one that refers the most to the writings of other authors. So now is a good time to discuss the APA (2001) procedure for citing reference sources in the text.

Citing one or two authors. When summarizing other persons' theories and research, it is necessary to give them credit for their work by citing their last names and the year of the publication. Do this within the sentence with the authors' names as part of the sentence and the year of the publication in parenthesis, or at the end of a sentence or paragraph with the names and year both in parenthesis. Do not give the title of the article unless there is some reason to do so. For example:

Martin and Hall (2005) found that at risk youth...; or

One study found that at risk youth... (Martin & Hall, 2005).

When to use "and" and when to use "&". Notice that the first example above spells the word "and", and the second example uses the ampersand for "and" (that is, &). For some reason, APA makes this distinction. Use "and" when the authors' names are part of the sentence, and use the ampersand (&) when the authors' names appear within parentheses. In addition, when the parentheses appear at the end of the sentence, the period punctuation follows the close of the parentheses.

Use of first names and initials. Notice also the omission of first names or initials in the above examples. Generally, do not use first names or initials at all, but there are exceptions. Use the first name when referring to famous people and it is important to make that point. Examples of appropriate first name uses are Jack Kennedy, Martin Luther King, and Gene Kelly (the dancer). Also, use the first author's first and middle initials when there are two different authors with the same last name. Then the reference would be J. F. Martin and Hall (2005) or (J. F. Martin & Hall, 2005).

Citing three to five authors. When an article has three to five authors, give the last names of all authors with the publication date when mentioning the article for the first time in the text. In subsequent citations of the article give only the last name of the first author followed by "et al." For example, use:

Garcia, Bell, and Grey (2004) found... the first time mentioned, then

Garcia et al. (2004) also found... for subsequent citations; or

One study found... (Garcia, Bell, & Grey, 2004). the first time, then

Another finding... (Garcia et al., 2004). for subsequent citations.

Citing six or more authors. When an article has six or more authors, cite only the last name of the first author followed by "et al." and the year for the first and subsequent citations. In the reference list, list first six authors' names followed by et al. If two references have the same first author last name so that shortening the two references using the "et al." form looks the same, add as many of the subsequent last names necessary to distinguish the two references.

Frequency of mentioning the citation. After mentioning the author and year the first time, it is not necessary to repeat them every time as long as it is clear it is the same article. It is acceptable to use the authors last names without the year, or simply use some variation of "the authors go on to show..., etc.". If the same study continues to the next paragraph, give the whole citation again. If the same study comes up again several pages later, give the whole citation.

When several articles make the same point. If several studies or articles draw the same conclusions, it is acceptable to describe the results once and list together all sources that support the information. Do this either in the text or in parentheses. When doing this, list the articles in alphabetical order by the first author's last name. For example: (Alou, 2003; Baker, 2002; Brown, 2004; Garcia, 2001).

When to use direct quotes? Hardly ever! Although it is certainly easier to quote an author directly than paraphrasing, the rule is, avoid quoting unless some loss of meaning or impact results from the paraphrase. Replacing Abraham Lincoln's "Four score and seven years ago" with "eighty-seven years ago" is an example where quoting makes sense. However, quoting because it is more convenient to use the author's words is not. On those rare occasions when there is justification for a quote, the author citation includes the page number of the quote. The citation appears immediately after the final quotation mark enclosed in parentheses. For example: (Chin, 2003, p. 234). If the author and year appear ahead of the quote to introduce it, then only give the page number at the end. If the quote is more than 40 words, indent and block the whole quote and do not use quotation marks. Put the reference citation and page number after the last punctuation of the quote.

Primary and secondary sources. Primary sources are those journal articles and books actually read for the literature review. Secondary sources are those journal articles and books that report on other researchers' studies. Primary sources are more reliable than secondary sources. Try to use primary sources. When using a secondary source, mention this. Give the secondary source in the reference list in the back of the project write up. In the text, name the original work, and give the citation for the secondary source using the following format: Smith's study (as cited in Martin & Hall, 2005) found.... The source actually read was Martin & Hall and you list it in the reference list. The source not actually read is the original version of Smith's article and you do not list it in the reference list. Use of Smith's findings in the present literature review uses Martin & Hall's interpretation of Smith's work. Books are more likely to have secondary sources of information than journal articles. So, be careful when using books as a source of information. This is one advantage journal articles have over books.

Closing thoughts about Chapter II. This chapter will probably be the longest chapter in pages. How many? There is no set number, but it is common for it to run 20 pages. The nature of the topic will require inclusion of certain content in the review. When that happens, the chapter is complete. Let that be the guide. When completed, a major portion of the hard writing is over.

It is easy to become distracted when researching your topic. More interesting, unrelated topics show up as the literature search proceeds. Taking these tangents can be interesting and educational, but unless they lead to a new research topic (which sometimes they do), they get in the way of finishing this review.

If writing Chapter II follows writing Chapter I, often additional literature discovered for Chapter II might also fit in Chapter I. Do not hesitate to go back and add or change parts of Chapter I based on new information from the literature. Consider that the first three chapters are works in progress, revised several times before finishing the final write up.

Chapter III

{Both Level 1 headings}

Methodology

The purpose of Chapter III is to describe the method or steps used to complete your study. One way to approach this chapter is to imagine that someone else is going to do the study and they would use the description in this chapter to tell them how to do the study. Describe each step briefly. This chapter is generally not long. The exact subheadings will vary depending on the nature of the study. If your research is a data gathering study using a survey, questionnaire, observation, or an interview to gather data, use the following Level 3 headings: *Participants*, *Instruments*, *Procedure*, and *Data Analysis*. If your research is a developmental study where the purpose is to create a handbook, curriculum, workshop, etc., use the following Level 3 headings: *Participants*, *Theoretical Rationale*, and *Outline of Handbook, or Curriculum, or Workshop*, etc. The description below will use a handbook as an example. If your research is both a data gathering study and a developmental study, use all of the headings. Description of each follows.

Start this chapter on a new page and write in past tense. Begin with a brief, one paragraph restatement of the problem statement and the purpose statement followed with a description of the organization for this chapter by listing the major topic headings used in the subsequent presentation. Then present the first subheading and its content.

Participants

{Level 3 heading}

Use this section for both data gathering and developmental studies. If a data gathering study, provide a detailed description of the people who serve as research participants for the study. Include any relevant demographic information such as how many, gender, age range, racial or ethnic make-up, and any other descriptive details that are important to the study. Also, explain the criteria for selecting the participants and from what larger populations so that it is clear to what population the results of this study generalize. Avoid discussing what happens with the participants, that goes in the Procedure section later. Simply describe the people, the selection process and then go on to the next section.

If a developmental study, provide a detailed description of the people who will potentially use the handbook. Include any relevant demographic information such as gender, age range, racial or ethnic make-up, and any other descriptive details that seem important to the research. Simply describe the potential group of people who will use the handbook, then go on to the next section.

Instruments

{Level 3 heading}

Use this section for a data gathering study. Describe all tools used to gather or collect information from the participants such as surveys, questionnaires, interviews, tests, etc. Also, briefly include a rationale for the selection of each instrument (that is, why they are appropriate for the purposes of the study). Give sufficient detail so that it is clear what they physically look like. If the instrument is a well-known published test, less description is necessary. Include sample items or questions for clarification, but do not present the whole instrument here. Place copies of unpublished instruments (but not published tests) in an appendix in the back of the report. Mention here that a copy is in the appendix.

Report the reliability and validity data for each instrument. If the reliability and validity are not available or the instrument is new for the present study, explain the proposed procedures for establishing the reliability and validity of the instruments. Note, finding instruments with reliability and validity already established will save much time. It is acceptable to use instruments found in the professional literature instead of creating a new one for your study. It is more likely to find such instruments in journal articles, which is another reason to read the journals.

Procedure

{Level 3 heading}

Use this section for a data gathering study. Describe each step used to carry out the research. Include the instructions to the participants, the procedure for forming groups (if any), and what happens to each group. Describe steps for administering each instrument and under what conditions. Explain steps to insure ethical considerations for participants' rights. This subsection gives a complete step-by-step description of how to complete the study so that another person could do it.

Data Analysis

{Level 3 heading}

Use this section for a data gathering study. Describe procedures for data summary, analysis, and interpretation for the proposed hypotheses and/or research questions. Include a description of variables analyzed, and the statistical procedures used. Sometimes this section fits better in Chapter IV. If so, put the data analysis description in Chapter IV, but include here in Chapter III if an EDCO 221 assignment.

Theoretical Rationale

{Use a Level 3 heading here}

Use this section for a developmental study. This section provides the rationale for the handbook. The rationale is an explanation of the reasoning or principle that inspires or explains the course of action for the handbook. Use information from the research literature you summarized in Chapter II to show the logic or reasons for the organization and content of the handbook. This section provides the reader with

information on how you decided what to include in the handbook and the reasons for the decisions. You are not justifying the need for the study, but rather, justifying the choice of content for the handbook.

Outline of Handbook

Use this section for a developmental study. Based on the theoretical rationale presented above, this last section shows an outline of the sections of the handbook that will appear in detail in Chapter IV. This outline can assist you in creating the division and subdivision of the content areas of the handbook. As you work on the actual handbook in Chapter IV, you may need to return to this outline in Chapter III to adjust the sections to be consistent with the final version presented in Chapter IV.

Chapter IV

{Both Level 1 headings}

Results

The purpose of this chapter is to present the outcome of your research. The title for Chapter IV will vary depending on the type of research. If your research is a data gathering study, use the Level I heading Results for the chapter title. If your research is a developmental study, it may be more appropriate to have a chapter title that is descriptive of the handbook, curriculum, workshop, etc. Start Chapter IV on a new page. Begin with a brief one paragraph restatement of the problem statement and the purpose statement followed with the organization of this chapter by listing the major topic headings used in the subsequent presentation. Then present the first subheading and its content.

For a developmental study, the purpose of this chapter is to present the handbook, curriculum, workshop, etc. For projects developing a handbook, this chapter presents the actual handbook. For projects developing a curriculum or workshop, approach this chapter as if it were a training manual providing all of the materials and instructions needed for someone else to carry out the curriculum, or workshop. Use the outline section presented in Chapter III to help organize Chapter IV. This chapter may be lengthy because of the need for details.

For a data gathering study, the purpose is to summarize and analyze the data collected in the study. Generally, this chapter presents the results without any interpretation (i.e. what the results mean). The interpretation happens in Chapter V. If the Data Analysis subsection was not part of the previous chapter, include it here. Also, remember that the word "data" is a plural noun. The singular form is "datum" and seldom used. Thus, write "The data were...", or "The data show....".

The exact subheadings for a data gathering study will depend on the nature of the study and the kind of data generated by the instruments. A good way to organize a data gathering study results chapter

is to refer to the hypotheses and/or research questions in Chapter I. Restate each hypothesis and then present the appropriate data and statistical procedures used to test the hypothesis. Do this for each hypothesis.

Use the same format for research questions. Restate each research question and give a response for each. For the research questions answered by the literature review, give the relevant

information from the literature. For the ones answered from data generated by the instruments, give the data. Statistical tests may not be appropriate, but descriptive statistics such as means, medians, standard deviations, frequencies and percentages are appropriate.

Then, after presenting the results for each hypothesis or research question, present any other results found. Sometimes, doing the study uncovers unexpected results that need reporting. This is the time to present these unexpected results.

Use tables to present a result visually. Use tables only if they provide a clearer presentation of the information. Do not use tables if the written description presents the results clearly. When used, it is necessary to describe the table content in words. Number tables consecutively in the order mentioned in the text. Identify them by the word "Table" and an Arabic number. Place the tables as near as possible to the first mention of them in the text. Short tables may have text above and below them. If tables will not fit on the same page where mentioned, place them on the top of the next page. The design for tables depends on the content presented. Use the following APA format:

Table 1

Give the Table a Title that Describes the Table Contents and Place it Here

Using Upper and Lower Case Letters in Italics

Place column headings here not in italics

Place content of table here so that it presents the information clearly

Note. If there are any explanatory notes, place them here with this heading.

The table content uses horizontal lines as shown above. Use more horizontal lines if necessary depending on need for clarity, but do not clutter the table with horizontal lines, and do not use vertical lines at all. Do not use spreadsheet format. The goal is to have a clear clean presentation of the data. Remember, use tables only if they clarify the text words. Tables are not required in the project.

Chapter V

{Both Level 1 headings}

Summary, Conclusions, and Recommendations

This is the final chapter. Its purpose is to summarize the whole study, draw conclusions (what the results mean), and make recommendations (how to use the results and where to go from here). A good way to approach writing this chapter is to imagine that this will be the only chapter read by others. What is it that the reader needs to know to understand the whole study by reading only this one chapter? To do this, give a brief summary of each of the other chapters. Use the title of this chapter as a guide for organizing the writing. Start with the summary, then give the conclusions, and finish with the recommendations. As before, begin this chapter on a new page.

The summary portion of the chapter includes a brief overview of the problem, purpose, and hypotheses and/or research questions from Chapter I; the main points from the literature from Chapter II; and a brief summary of the steps used to complete this study from Chapter III. Since this chapter starts out with this summary, a subheading is not necessary to announce it.

Conclusions

{Level 3 heading}

Do use a subheading for this portion of the chapter. This section presents conclusions based on the data presented in Chapter IV. It may be necessary to restate each hypothesis and/or research question, the results, and then what they mean (interpretation). Relate the results and conclusions to the literature from Chapter II when appropriate. It is also acceptable to refer to new literature not included in Chapter II since there may be new articles published since completing the review chapter or the results from this study raised new issues not originally considered and the new literature helps to understand the unexpected results. This is the place to make this addition. Also, be sure to recall the original reasons that this topic was of interest in the first place and draw conclusions about those issues.

Recommendations

{Level 3 heading}

Use this subheading for this last section of the report. This section presents suggestions for the future based on the data from Chapter IV. Make suggestions about how to apply the results of this study. Consider professional groups, such as teachers, counselors, administrators, and suggest how each can use the results from this study. Also, review the present study and make recommendations for doing it differently. Finally, make recommendations for completing other possible studies in the future.

References

{Level

1 heading}

The reference list starts on a new page using this heading. It presents an alphabetical list by first author's last name of the journal articles, books, and other sources used in the write up. Include only the sources actually mentioned in the write up. Do not include sources read but not mentioned in the write up.

That is a bibliography. There are many many many tiny tiny details in APA (2001) format for making a reference list. Pay particular attention to use of punctuation, upper and lower case letters, and parts italicized and parts that are not. Be aware that copying the reference from another published source does not guarantee that it is in the correct form. That other source may not use APA format. See below for some examples of journal and book references:

Note. Do not use the following subheadings on an actual reference list. Use here is to highlight of each type of reference.

Journal Article Examples

{Level 3 heading, but do not use in reference list}

McWhirter, J. J., McWhirter, B. T., McWhirter, A. M., & McWhirter, E. H. (1995). Youth at-risk: Another point

of view. *Journal of Counseling and Development, 73*, 567-569.

Rak, C. F., & Paterson, L. E. (1996). Promoting resilience in at-risk children [Electronic version]. *Journal of*

Counseling and Development, 74, 368-373.

Rak, C. F., & Paterson, L. E. (1996). Promoting resilience in at-risk children. *Journal of Counseling and Development, 74*, 368-373. Retrieved January 29, 2005, from

<http://www.counseling.org/resources/journals.htm>.

Note that McWhirter comes in the alphabet before Rak and therefore is first. Notice the placement of each comma, period, colon, and the use of "&". All of these are necessary. The title of the individual article in the journal appears after the year of publication. Capitalize only the first word of the title, the first word following any major punctuation in the title (see the colon in the McWhirter et al. article), and any proper nouns. Otherwise, use lower case letters in the title. Next is the name of the journal where the article appears. Capitalize each main word of the journal name and italicize the whole name. The volume number of the journal follows the title and in italics (*Journal of Counseling and Development, 73*,). Following the volume number are the page numbers for this particular article. Give the beginning and ending page numbers without any "page" or "pp." designation. The two Rak and Paterson examples show how to reference articles from the Internet. Use the first example when you read the electronic version that is an exact duplicate of the print version. Use the second example when you believe the

electronic version is somehow different from the print version. In that case, add the date you retrieved the document and the URL address.

Book Examples

{Level 3 heading, but do not use in reference list}

Atkinson, D. R. & Hackett, G.(2004). *Counseling diverse populations* (4th ed.). New York, NY: McGraw-Hill Publishers.

Lee, E. (1996). Asian families: An overview. In M. McGoldrick, J. K. Pearce, & J. Giordano (Eds.), *Ethnicity and family therapy* (2nd ed., pp. 227-248). New York, NY: Guilford Press.

Book references have many similarities to journal references and some differences. The two book examples shown above demonstrate this. In the Atkinson and Hackett example, listing of the authors and year of publication are the same as in a journal. Put the title of the book in italics. Use of upper and lower case letters is the same as the article title in a journal. Following the title is the edition number if it not the first edition of the book (4th ed.) and not italics. Then give the city and state of the publisher (New York, NY) followed by a colon and the name of the publisher (McGraw-Hill Publishers).

The second book example is different. It shows how to reference an edited book where each chapter has a different author. Start with the authors of the actual chapter used (Lee, E. in the above example). Then give the year of publication. Follow this by the title of the chapter (Asian families: An overview.) upper and lowercase as shown and not in italics. Then give the names of the editors of the whole book (M. McGoldrick, J. K. Pearce, & J. Giordano). Notice this time the editors first and middle initials appear before their last names rather than after (Why? Who knows.). Follow this by the abbreviation for editor in parentheses (Eds.) followed by a comma. Then give the title of the book in italics (*Ethnicity and family therapy*), followed by the edition number if it not the first edition of the book and inclusive page numbers of the chapter using "pp." and all in one parentheses (2nd ed., pp. 227-248). Then give the city and state of the publisher and the name of the publisher (New York: Guilford Press.).

The APA publication manual (2001) has 95 different examples of referencing styles, but these are the main ones. It is a lot of tiny detail. Expect to make errors, and do not sweat it. Life will continue.

Appendix

{Level 1 heading}

The appendix is a place to put materials used in the study that were too long or complicated to include in the main sections of the write up. The usual items included are copies of the unpublished instruments used in the study, lengthy instructions to participants, and participant permission or release forms. If there are several different items, put each in their own appendix and label each with the title Appendix and an uppercase letter (that is, Appendix A, Appendix B, etc.), and give each appendix a title

that describes its contents (for example The Summerhill Household Survey). Omit this section if there are not items to include.