The Guide for Completing the EdD Dissertation at Columbus State University

Doctoral Office of Advising and Records
College of Education and Health Professions
Columbus State University
Columbus, Georgia

April 2019
# Table of Contents

Overview ........................................................................................................................................... 5

Formatting ........................................................................................................................................ 11
  - Dissertation Approval Form ................................................................................................................... 11
  - Title Page ........................................................................................................................................ 11
  - Copyright Page ............................................................................................................................... 14
  - Dedication ....................................................................................................................................... 14
  - Acknowledgements ........................................................................................................................ 15
  - Vita .................................................................................................................................................. 15
  - Abstract .......................................................................................................................................... 16
  - Table of Contents ............................................................................................................................ 16
  - List of Tables and List of Figures .......................................................................................................... 17
  - Chapters I and V .............................................................................................................................. 17
  - References .................................................................................................................................... 19
  - Appendices ..................................................................................................................................... 19
  - Tables and Figures ........................................................................................................................... 20
  - Additional Format and Style Guidelines ............................................................................................ 21
    - Copyright Considerations ............................................................................................................. 21
    - Margins ....................................................................................................................................... 22
    - Line and Word Spacing ................................................................................................................ 22
    - Paragraphs .................................................................................................................................... 22
    - Pagination .................................................................................................................................... 23

Writing Guidelines ............................................................................................................................... 24
  - Write and Rewrite ............................................................................................................................. 24
  - Find Readers .................................................................................................................................... 24
  - Keep Writing .................................................................................................................................... 24
  - General Suggestions ........................................................................................................................ 24
    - Feedback ...................................................................................................................................... 24
    - Be Patient ..................................................................................................................................... 25
    - Ask for Help ................................................................................................................................. 25
    - Document ..................................................................................................................................... 25
  - Academic Dishonesty ........................................................................................................................ 26
  - Guidelines for Formal, Technical Writing .......................................................................................... 27

Dissertation Prospectus .......................................................................................................................... 29

Chapter I: INTRODUCTION .................................................................................................................. 31
  - Background of the Problem .............................................................................................................. 32
  - Statement of the Problem .................................................................................................................. 32
  - Purpose of the Study .......................................................................................................................... 34
  - Research Questions/Hypotheses ......................................................................................................... 34
  - Theoretical and/or Conceptual Framework ........................................................................................ 36
Chapter II: REVIEW OF LITERATURE ................................................................. 40
Purpose of the Literature Review ................................................................. 44
How to Begin the Literature Review ............................................................ 45
  Selecting a Topic ...................................................................................... 45
  Searching for Literature ......................................................................... 48
Introduction .............................................................................................. 50
Theoretical and/or Conceptual Framework ..................................................... 50
  Theoretical Framework ......................................................................... 50
  Conceptual Framework ......................................................................... 50
Writing Tips for the Literature Review ......................................................... 51
  Bias ........................................................................................................ 54
  Length of Chapter II .............................................................................. 54
  Concept Analysis Chart ....................................................................... 54
Summary .................................................................................................... 55

Chapter III: METHODOLOGY ................................................................. 57
Introduction .............................................................................................. 58
Resign Design ........................................................................................... 59
Role of the Researcher ............................................................................... 59
Participants ............................................................................................... 60
  Population and Setting ....................................................................... 60
  Sample ................................................................................................. 60
Instrumentation ......................................................................................... 61
  Validity ................................................................................................. 62
  Reliability ............................................................................................. 64
Published Resources .................................................................................. 65
Pilot Study ................................................................................................. 65
Other Sources of Data ................................................................................ 66
Intervention ............................................................................................... 66
Data Collection .......................................................................................... 68
Data Analysis ............................................................................................. 69
Summary .................................................................................................... 70
Institutional Review Board ......................................................................... 70

Chapter IV: RESULTS ........................................................................... 72
Summarizing Data ..................................................................................... 72
Clustering of Data ...................................................................................... 73
Cautions about Interpreting the Data .......................................................... 75
Introduction..................................................................................................................77
Participants..................................................................................................................77
Findings.........................................................................................................................77
Summary .......................................................................................................................79

Chapter V: DISCUSSION .............................................................................................80
Summary of the Study ..................................................................................................80
Analysis of the Findings ..............................................................................................81
Limitations of the Study ..............................................................................................82
Recommendations for Future Research ......................................................................83
Implications of the Study ............................................................................................83
Dissemination of the Findings ......................................................................................84
Conclusion ....................................................................................................................85

Appendices ..................................................................................................................86
The dissertation is a culminating experience and the termination activity for the Doctor of Education (Ed.D.) degree. The dissertation is planned with reference to the EdD student’s field of specialization and professional goals. It may take the form of a field project, a creative study, or a more formal research study, and it will culminate in a written, scholarly report that is an original contribution to the literature of the field. The subject of the research and the components of the project are to be decided by the EdD student and approved by his or her EdD Dissertation Committee. Many types of research are acceptable, and most topics are admissible when successfully tied to education and the EdD student’s program track. The following guidelines are provided to aid the EdD student and the EdD Dissertation Committee as they plan and submit the EdD dissertation.

Consistency of format and presentation is important to the success of the EdD dissertation. Students in the EdD in Curriculum and Leadership Program at Columbus State University are required to follow APA (American Psychological Association) 6th edition guidelines when preparing the EdD dissertation; however, some deviations from APA format will be utilized (e.g., lack of boldface font, no running head, and page margins). Consequently, EdD students should have two manuals in hand before beginning the dissertation process: (1) the 6th edition of the Publication Manual of the American Psychological Association, which can be purchased in the University Bookstore, and (2) The Guide for Completing the EdD Dissertation at Columbus State University, which is available as a free PDF download from the Doctoral Office of Advising and Records. The Chair of the EdD Dissertation Committee and the Director of the Doctoral Program in Education must approve any deviations from the recommended EdD dissertation format before the prospectus is completed and approved.
Although the EdD dissertation will probably be the largest and most complex research conducted to date, the EdD student should visualize the dissertation as a building block process. Chapter I outlines the need for the study (i.e., statement of the problem), Chapter II details what others have discovered about the topic (i.e., review of the literature), Chapter III contains a detailed description of how the study will be conducted (i.e., methodology), Chapter IV presents the results of the study (i.e., findings), and Chapter V connects the results back to the empirical literature in Chapter II (i.e., discussion). The EdD student should think of the EdD dissertation as an expanded research paper that examines a topic in great depth with each chapter building on the preceding chapters. Consequently, each chapter must be written with a view toward the whole of the project and not as an independent element. The dissertation should demonstrate the ability of the EdD student to plan and conduct original research independently at an advanced level.

Writing and defending a dissertation is the culmination of a long period of sustained effort. EdD dissertations are representations of the standards of the degree-granting college and of Columbus State University (CSU). The EdD Dissertation Committee is responsible for judging the content and methodology development, writing quality, and professional appearance of the EdD dissertation. All individuals involved in the dissertation process, whether writing, proofing, or editing, should ensure that the final document is of the highest quality possible. At CSU, the EdD dissertation must adhere to certain general standards:

1. Be prepared in accordance with the ethical standards of scholarship and publishing.
2. Be the result of concentrated effort to solve a well-defined problem with a coherent theme.
3. Furnish evidence that the EdD student is familiar with the general rules of scholarship in the discipline. EdD students must show familiarity with empirical literature and research methods, and they must present research results in a formal manner appropriate to education.


The following guide depicts the EdD dissertation process, beginning with the prospectus and ending with publication. The process is divided into four steps. Within each step, the required components involved with that step are listed (e.g., sections within a specific chapter or points to include within a particular chapter).

**Step 1: Complete and Defend the Dissertation Prospectus.**

- Complete Chapter II (REVIEW OF LITERATURE).
  - Review of literature as it pertains to your dissertation topic from the broadest to the most specific.
  - Develop a Theoretical and/or Conceptual Framework.
  - Identify gap(s) in the empirical literature.

- Complete Chapter I (INTRODUCTION).
  - Background of the Problem
  - Statement of the Problem
  - Purpose of the Study
  - Research Questions (and Hypotheses)
  - Theoretical and/or Conceptual Framework
  - Methodology Overview
Delimitations and Limitations
Definition of Terms
Significance of the Study
Summary

- Create a Reference section. (Make sure each citation has a corresponding reference.)
- Submit dissertation prospectus to the EdD Dissertation Committee for review.
- Submit the Application for Prospectus Defense to the Doctoral Office of Advising and Records.
- Defend dissertation prospectus successfully.

**Step 2: Complete and Defend the Dissertation Proposal.**

- Complete rewrites of Chapters I and II per Committee’s recommendations.
- Expand Chapter II as needed.
- Complete Chapter III (METHODOLOGY). (Describe the data analysis in detail so another research could replicate it.)
  - Introduction
  - Research Design
  - Role of the Researcher
  - Participants
  - Instrumentation (include all measures and permission letters as appendices)
  - Intervention (if applicable)
  - Data Collection (very detailed so the study can be replicated)
  - Data Analysis
  - Summary
• Submit dissertation proposal to the EdD Dissertation Committee for review.

• Submit the Application for Proposal Defense to the Doctoral Office of Advising and Records.

• Defend dissertation proposal successfully.

• Complete the CSU IRB application if working with human subjects. (Include IRB addendum materials as appendices.)

**Step 3: Obtain IRB Approval, Collect Data, Analyze Data, and Interpret Data.**

• Complete rewrites of Chapters I, II, and III per Committee’s recommendations.

• Obtain IRB approval from all stakeholders if you are working with human subjects.

• Collect data.

• Analyze and interpret data.

• Complete Chapter IV (RESULTS).
  
  o Introduction
  
  o Participants
  
  o Findings (for each research question)
  
  o Summary

• Complete Chapter V (DISCUSSION).
  
  o Summary of the Study
  
  o Analysis of the Findings
  
  o Limitations of the Study
  
  o Recommendations for Future Research
  
  o Implications of the Study
  
  o Dissemination of the Findings (if applicable)
Conclusion

- Finalize References. (Make sure each citation has a corresponding reference.)

**Step 4: Defend and Publish EdD Dissertation.**

- Submit final dissertation to the EdD Dissertation Committee for review.
- Defend the EdD dissertation successfully. (*Note:* EdD dissertation defenses are open to the public.)
- Make any required edits to the EdD dissertation to address any issues brought up by the EdD Dissertation Committee before final submission.
- Submit final draft of the EdD dissertation for university review and the Library’s Submission Approval Form to the Doctoral Office of Advising and Records.
- Make any required format and style to the EdD dissertation after university review.

This guide is written as a “paint by the number” approach to acquaint the EdD student with both the components of the EdD dissertation and the strategies for writing it. The components stipulated for each chapter are the basic minimum, but the Chair of the EdD Dissertation Committee may add other components as per the requirements of the study described. EdD students are urged to follow the directions of the Chair and EdD Dissertation Committee when writing and submitting any part of the dissertation for review or defense.
The EdD dissertation should be typed using a word processing software utilizing size 12, Times New Roman font. The EdD dissertation should be arranged in the following order:

1. Dissertation Approval Form
2. Title Page
3. Copyright Page
4. Dedication
5. Acknowledgements
6. Vita
7. Abstract
8. Table of Contents
9. List of Tables
10. List of Figures
11. Chapter I
12. Chapter II
13. Chapter III
14. Chapter IV
15. Chapter V
16. References
17. Appendices

**Dissertation Approval Form**

The Dissertation Approval Form is the first page of the dissertation (i.e., it is considered page “i”) but should not be numbered. The Dissertation Approval Form is included within the EdD dissertation template, and it is signed by all members of the EdD Dissertation Committee, Director of the Doctoral Program in Education, Director of COEHP Graduate Studies, and the Dean of COEHP. The Dissertation Approval Form is not listed in the table of contents.

**Title Page**

The title page should be the second page of the dissertation (i.e., it is considered page “ii”) but should not be numbered. The title should be as concise as possible and provide an accurate description of the EdD dissertation. Use your full legal name as it appears on your academic records at CSU. The month and year should be the actual month in which the degree
will be officially awarded and not necessarily when the dissertation was approved by the faculty and CSU. The month and year should not have a comma between them. The title page should follow exactly the sample contained in this document and within the EdD dissertation template. The title page is not listed in the table of contents.
A CASE STUDY OF SCHOOL ADMINISTRATORS’ AND TEACHERS’
PERCEPTIONS REGARDING PROFESSIONAL LEARNING COMMUNITIES

By
Sally Sue Smith

A Dissertation
Submitted in Partial Fulfillment of the Requirements for
the Degree of Doctor of Education
in Curriculum and Leadership
(CURRICULUM)

Columbus State University
Columbus, GA

May 2018
Copyright Page

The copyright page is the third page of the dissertation (i.e., it is considered page “iii”) and should be numbered using a lowercase Roman numeral that is centered and placed 0.5 of an inch from the bottom edge of the paper. Beginning with this page, the top, bottom, and right margin should be 1 inch. The left margin should be 1.5 inches for binding purposes. The copyright gives you the exclusive right to print, reprint, copy, and sell your work and to prepare derivative works. In other words, it protects you against anyone infringing on these rights. To maintain your copyright, a copyright notice must appear on all copies of your dissertation. If the EdD student wishes to copyright the dissertation, a copyright page should be included following the title page. The copyright symbol, graduation year, and the copyright holder’s name followed by All Rights Reserved.” should be centered from left to right and placed 2 inches from the bottom edge of the paper. The copyright page is not listed in the table of contents. See the Figure 1 as an example of a copyright notice.

© 2018 by Sally Sue Smith. All Rights Reserved.

Figure 1. Example of a copyright notice for an EdD dissertation.

Dedication

The dedication page is the fourth page of the dissertation (i.e., it is considered page “iv”). The page should be numbered using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. The page should be titled in all capital letters and centered 1 inch from the top edge of the paper. This page is included for EdD students who wish to dedicate the dissertation to persons who have given extraordinary encouragement or support to the EdD student’s academic career. The dedication page is optional, and it should be deleted.
from the EdD dissertation template if unused. The dedication page, if used, is not listed in the table of contents.

**Acknowledgements**

The acknowledgements page is the fifth page of the dissertation (i.e., it is considered page “v”). The page should be numbered using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. The page should be titled in all capital letters and centered 1 inch from the top edge of the paper. On the acknowledgements page, the EdD student expresses his/her professional and personal indebtedness for assistance, cooperation, and/or support for completion of the dissertation. Acknowledgements should mention whatever assistance the student honestly appreciates (e.g., advice and counsel of the Chair and/or EdD Dissertation Committee). Extravagant praise and insincere thanks should be avoided. Acknowledgements to inanimate objects or animals will not be accepted. The acknowledgements should be written in a dignified and professional manner. The acknowledgements may be written in either first or third person; just be consistent. The acknowledgement page is not listed in the table of contents.

**Vita**

The vita page is the sixth page of the dissertation (i.e., it is considered page “vi”). The page should be numbered using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. The page should be titled in all capital letters and centered 1 inch from the top edge of the paper. The EdD student should include a brief vita about his or her educational background and professional experiences for the benefit of readers and future researchers. The vita page, which is usually two pages, is optional, and it should be deleted from
the EdD dissertation template if unused. The vita page, if used, is not listed in the table of contents.

Abstract

The abstract page is the seventh page of the dissertation (i.e., it is considered page “vii”). The page should be numbered using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. The page should be titled in all capital letters and centered 1 inch from the top edge of the paper. The purpose of the abstract is to present the significant contents of the manuscript. It consists of (a) a description of the research problem and its significance, (b) purpose of the study, (c) theoretical and/or conceptual framework, (d) a brief description of research design, data collection, and data analysis, (e) key findings of the study, and (f) a description of conclusions and implications for educational practice. Typically, the abstract will be 350 words or one page in length. The abstract should be double-spaced and in block paragraph (i.e., without a 0.5” indent). The abstract page is not listed in the table of contents.

Table of Contents

The table of contents begins on the eighth page of the dissertation (i.e., it is considered page “viii”). The page should be numbered using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. The page should be titled in all capital letters and centered 1 inch from the top edge of the paper. A table of contents is a topic outline of the dissertation. It must accurately reflect the organization of the dissertation. The table of contents should list the chapter or major sections of the dissertation and subdivisions in each chapter (i.e., level 1 and level 2 headings), references, and appendices. Each item listed will have the corresponding page number. Use the tab setting option to create flush right header dots
to connect the text and corresponding page number. Use double-spacing after each section headings (e.g., Chapter), and use single-spacing between the subheadings. Headings in the text should match in capitalization, punctuation, and spelling with the headings listed in the table of contents, list of figures, and list of tables. If titles require more than one line, the second and subsequent lines are indented 0.5 of an inch and aligned with a tab setting. Page numbers should be aligned with the right margin, and they should reflect the content’s location in the dissertation accurately. (See step-by-step directions from Indiana University of Pennsylvania.) See the table of contents for this guide as an example.

**List of Tables and List of Figures**

The list of tables begins on the next page after the table of contents, and the list of figures begins on the next page after the list of tables. The pages should be numbered consecutively using a lowercase Roman numeral centered and placed 0.5 of an inch from bottom edge of the paper. Each list should be titled in all capital letters and centered 1 inch from the top edge of the paper. The lists should include every table and figure in the EdD dissertation, including the appendices. Entries in the list should be typed single-spaced within entries and double-spaced between entries. The table/figure number, caption, and page number must match the entry in the number, caption, and page number for the list of tables and list of figures.

**Chapters I through V**

The chapters should be presented in numerical order. The first page of each chapter should begin with the chapter number (e.g., CHAPTER III) centered in all capital letters using uppercase Roman numerals and placed 1.5 inches from the top edge of the page. On the next double-spaced line, add the chapter description (e.g., METHODOLOGY) centered in all capital letters. Beginning with the first page of Chapter I, number pages using Arabic numerals (i.e.,
page “1”), which should be flush right and placed 0.5 of an inch from the top edge of the paper. Each chapter of the dissertation should begin a new page with the appropriate chapter number and title.

The EdD student is expected to use appropriate headings and subheadings throughout the EdD dissertation. The headings and subheadings perform two important functions. First, they help the reader move efficiently through the narrative; but, more importantly, they assist the writer in the logical and orderly presentation of material. There are five heading levels in APA (6th edition). Regardless of the number of levels, always use the headings in order, beginning with Level 1, except boldface font is not used in the EdD dissertation. Figure 2 presents the format of each heading level for the EdD dissertation.

<table>
<thead>
<tr>
<th>Level</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered, Uppercase and Lowercase Headings</td>
</tr>
<tr>
<td>2</td>
<td>Left-aligned, Uppercase and Lowercase Heading</td>
</tr>
<tr>
<td>3</td>
<td>Indented 0.5”, lowercase paragraph heading with a period.</td>
</tr>
<tr>
<td>4</td>
<td><em>Indented 0.5”, italicized, lowercase paragraph heading with a period.</em></td>
</tr>
<tr>
<td>5</td>
<td>Indented 0.5”, underlined lowercase paragraph heading with a period.</td>
</tr>
</tbody>
</table>

*Figure 2. Format for APA level headings for the EdD dissertation.*

Figure 3 (below) displays an example of the headings format for the EdD dissertation. The chapter number and the title of the chapter are typed in all capital letters, centered, and are not considered a header level for the purposes of the EdD dissertation only.

CHAPTER IV

RESULTS

Findings (Level 1 Heading)
Schools (Level 2 Heading)

High poverty, low performing schools. (Level 3 Heading)

Unique descriptors. (Level 4 Heading)

Exceptions for consideration. (Level 5 Heading)

Figure 3. An example of the EdD dissertation heading format for Chapter IV.

References

On a new page, center “REFERENCES” using all capital letters and centered. Title should be placed 1 inch from the top edge of the page. The reference section must be presented following APA (6th edition) style guidelines. References should be double-spaced per APA guidelines. The first line of each reference is flush with left margins; remaining lines are indented 0.5 of an inch. Use CTRL+T as a shortcut or adjust the ruler guides rather than using paragraph indents. The reference section should include all works cited in the dissertation arranged alphabetically by first author’s surname, and all items listed as references must have corresponding citation in the dissertation text. The APA (6th edition) Publication Manual can provide guidance for ensuring accuracy in these details. The EdD student can utilize the Find feature in Word to ensure each citation has a corresponding reference. Any hyperlinks or underlining should be removed from the references for publication purposes. Follow the same margin requirements as in the text. Pages with this section are numbered consecutively following the last section of the text.

Appendices

Any additional information pertaining to the dissertation study should be presented in the Appendices (e.g., CSU IRB approval, data collection measures, written permission to utilize copyrighted materials, and recruitment letters). Add a cover sheet between the Reference
Section and Appendices. Type “APPENDICES” centered from top to bottom and left to right using all capital letters. Each appendix requires a new page, beginning with Appendix A. Center “Appendix” and the identifying capital letter 1 inch from the top edge of the page. On the next line, center the title of the appendix using uppercase and lowercase letters. Each appendix carries a descriptive title, which will appear in the table of contents. Appendices are assigned letters based on their order of appearance in the dissertation. Follow the same margin requirements as in the text. Pages with this section are numbered consecutively following the last section of the text.

Tables and Figures

The EdD student should closely check the APA (6th edition) Publication Manual for information and details on the inclusion of tables and figures. APA recommendations must be followed. Quantitative information should be presented in a table. Tables carry Arabic numerals and are numbered consecutively throughout the text. Graphs, charts, maps, drawings, and photographs should be presented as a figure. Figures carry Arabic numerals and are numbered consecutively throughout the text. Tables and figures should be referred to by number in the text preceding it.

Above the table, type “Table” and its number flush left. Type its title double-spaced below the table number flush left using uppercase and lowercase in italics. (Single-space if the length of the title exceeds one line.) Below the figure, type “Figure” in and its number flush left using italics followed by a period, then type the caption using uppercase and lowercase letters without italics. The caption should be double-spaced. Titles and captions should be concise, clear, and expressive. All table titles should be self-sustaining, that is, they must be able to stand alone. The table title must be in sufficient detail to permit the table to be displayed and
understood without benefit of additional narrative. See Chapter 5 (Displaying Results) in the *APA (6th edition) Publication Manual* for more details about tables and figures. Figure 4 displays a table formatted using APA (6th edition) style guidelines. The [Format and Style Checklist for the EdD Dissertation](#) and one of the dissertation checklists on the EdD Program Website can provide additional assistance and examples.

Table 1

*Descriptives for Selected Pre-Requisite Quantitative Coursework*

<table>
<thead>
<tr>
<th>Course</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1151</td>
<td>78</td>
<td>3.45</td>
<td>0.82</td>
</tr>
<tr>
<td>CHEM 1152</td>
<td>77</td>
<td>2.13</td>
<td>0.91</td>
</tr>
<tr>
<td>MATH 1111</td>
<td>52</td>
<td>3.17</td>
<td>0.92</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>37</td>
<td>3.49</td>
<td>0.65</td>
</tr>
<tr>
<td>STAT 1127</td>
<td>45</td>
<td>3.31</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*Note:* Students are not required to take the same courses. Substitutes are allowed. The numerical values correspond to a four-point GPA scale.

*Figure 4.* A table formatted using APA (6th edition) style guidelines *(Source: Brown & Smith, 2018).*

**Additional Format and Style Guidelines**

**Copyright Considerations**

In order to avoid a violation of the copyright laws, the EdD student must secure permission of the publisher and/or original developer before using any material covered by the copyright laws in the dissertation. These materials include, but are not limited to, figures, maps, tables, intervention materials, and data collection measures (e.g., surveys, questionnaires, and interview protocols) that have been duplicated from the original publication. Duplication is not restricted to the physical process of photocopying. Copies that have been traced, drawn free-
style, photographed, or duplicated by any means are a violation. When permission of the publisher is required, the consenting letter(s) must be placed in an appendix. An appropriate credit line is given in all textual, tabular, and figure citations, as indicated in the *APA (6th edition) Publication Manual*. The EdD student should consult the Chair of the EdD Dissertation Committee when uncertainties arise.

**Margins**

The left margin of each page must be 1.5 inches to permit binding without destroying any of the dissertation content. The top and bottom margins should be 1 inch unless otherwise noted. The right margin should be 1 inch. Table 1 displays the margins for each type of page.

Table 1

*Margins for each Type of Page in the EdD Dissertation*

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Right</th>
<th>Top</th>
<th>Bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title page</td>
<td>1.5”</td>
<td>1.0”</td>
<td>2.0”</td>
<td>2.0”</td>
</tr>
<tr>
<td>First page of each Chapter</td>
<td>1.5”</td>
<td>1.0”</td>
<td>1.5”</td>
<td>1.0”</td>
</tr>
<tr>
<td>Remaining pages</td>
<td>1.5”</td>
<td>1.0”</td>
<td>1.0”</td>
<td>1.0”</td>
</tr>
</tbody>
</table>

**Line and Word Spacing**

According to APA (6th edition) style guidelines, the text of the EdD dissertation is double-spaced, including the reference list. Do not add additional space above or below lines. To check the paragraph settings, on the *Home* tab, **Paragraph → Indent and Spacing**, under **Spacing**, set “before” and “after” to zero. Choose either one or two spaces between sentences following the ending punctuation, but be consistent.

**Paragraphs**

Paragraphs should be left justified. The paragraph indentation should be 0.5 of an inch from the left margin. Use **TAB** or adjust the ruler guides. A new paragraph shall not begin at
the bottom of the page or at the top of the subsequent page unless there is adequate space for at least two lines (i.e., widow and orphan rule).

**Pagination**

Every page in the dissertation is assigned a number; however, it may not be typed. Lowercase Roman numerals are used for page numbers in the preliminary pages beginning with “i” and consecutively numbered. Preliminary pages must be numbered at the bottom center of the page and 0.5 of an inch from the bottom edge of the paper. Arabic numerals beginning with “1” are used for all other pages of the dissertation, which begins on the first page of Chapter I. These pages are numbered consecutively, including References and Appendices. Table 2 provides a summary of pagination guidelines for the EdD dissertation.

**Table 2**

*Summary of Pagination Guidelines for the EdD Dissertation*

<table>
<thead>
<tr>
<th>Component</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertation Approval Page</td>
<td>• lowercase Roman numeral</td>
</tr>
<tr>
<td>Title Page</td>
<td>• starting with “i”</td>
</tr>
<tr>
<td></td>
<td>• assigned, not typed</td>
</tr>
<tr>
<td>Copyright</td>
<td>• lowercase Roman numeral</td>
</tr>
<tr>
<td>Dedication</td>
<td>• starting with “iii”</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>• centered</td>
</tr>
<tr>
<td>Vita</td>
<td>• 0.5” from bottom edge of the paper</td>
</tr>
<tr>
<td>Abstract</td>
<td></td>
</tr>
<tr>
<td>Table of Contents</td>
<td></td>
</tr>
<tr>
<td>List of Tables</td>
<td></td>
</tr>
<tr>
<td>List of Figures</td>
<td></td>
</tr>
<tr>
<td>Chapters I, II, III, IV, &amp; V</td>
<td>• Arabic numerals</td>
</tr>
<tr>
<td>References</td>
<td>• starting with “1”</td>
</tr>
<tr>
<td>Appendices</td>
<td>• flush with right margin</td>
</tr>
<tr>
<td></td>
<td>• 0.5” from top edge of the paper</td>
</tr>
</tbody>
</table>
Write and Rewrite

More experienced writers rewrite more times and more substantially than less experienced writers. Good writing takes time for everyone. The better a writer one becomes, the more the first thoughts/ideas/writing that come out of one’s head and onto the page can be improved. Provide time to rewrite so that the readers see the best thoughts and writing.

Find Readers

Ask people to read what has been written. Ask friends or others, but do not wait until the writing is "perfect". If people suggest changes after it is “perfect”, one is less likely to make them! Give people drafts and let them read!

Keep Writing

Good writing takes practice. The only way a person become a better writer is for himself or herself to write on a regular basis (i.e., practice), show the written work to other people, and *rewrite, rewrite, rewrite*. The key is to write regularly. EdD students should find the same time each day and write. For some candidates, that time is 6 am, and that time is 10 pm for other candidates. Whatever the time, try to be consistent. Over time, the thought process and writing will improve in quality and quantity.

General Suggestions

Feedback

Be prepared for extensive comments on any writing draft. The feedback from the readers will help you strengthen your written document and should not be taken as a personal attack. Rather, the writer should be thankful that someone took the time and effort to read and critique.
the writing. Make the corrections requested, learn from the mistakes, and do not make the same mistakes again.

**Be Patient**

The old adage of “Rome not being built in a day” is appropriate. Do not try to rush the process! Work with the EdD Dissertation Committee to improve the product. Please understand that the dissertation cannot be written in a couple of weekends. Set a realistic timeline for completing the dissertation and stay on target. The EdD Dissertation Committee does not work on the candidate’s time schedule so please allow more than sufficient time for them to read, critique, edit and provide feedback. Meetings should be scheduled at least 2 weeks in advance to accommodate everyone’s schedule.

**Ask for Help**

The chair, methodologist, and other committee members are available to assist. They will not and should not do the work, but they can serve in a variety of capacities to help successfully complete and defend the dissertation.

**Document**

Be sure to include references that document familiarity with the research literature. If in doubt, document. Remember that most people have very few original thoughts. Thoughts and ideas have been shaped by interactions with others. Therefore, the writer must give credit to the individuals who have influenced those thoughts and ideas. Always document and give authors credit for their work and in shaping the ideas. All chapters should be documented and referenced, which means Chapters I, II, III, IV. All the materials concerning the methodology should be referenced, particularly Chapter III.
Academic Dishonesty

Copying more than four consecutive words without proper citation can be considered plagiarism and, therefore, academic dishonesty. Academic dishonesty includes, but is not limited to, the following:

a. cheating on assignments or exams, including cheat sheets or other unauthorized materials;

b. copying from peers, or knowingly and willingly permitting or assisting others to copy from one’s own exam or other assigned work;

c. plagiarizing, which includes the undocumented use of quotations, ideas, or the paraphrasing of the ideas of others and presenting them as one’s own;

d. the submission of research papers that are not the product of the student’s own efforts;

e. submitting materials more than once (i.e., self-plagiarism).

All information attributed to another author should be properly documented and referenced. The rule of thumb is to make sure that any thought that belongs to someone other than the writer is documented appropriately. Paraphrased material must be referenced using the authors’ last names and publication year. Any material that is a direct quote from another author must be enclosed in double quotation marks or set apart in the text followed by a citation and page or paragraph number. Always give credit where credit is due! Claiming the exact words, paraphrases, ideas, arguments, or thoughts of another as your own is plagiarism, and CSU policies may require disciplinary action (including dismissal) and/or grade adjustments for this offense. Quotation marks should be used to indicate the exact words of another. Each time you paraphrase the words of another (e.g., summarizing passages, rearranging sentence order, or
changing words), you should credit the source in your writing. The rule of thumb is that more than four consecutive words constitute plagiarism.

**Guidelines for Formal, Technical Writing**

Formal, technical writing is different from the writing used by most educators. The writing is focused on communicating materials in a competent, concise, and clear style using the most efficient means possible using a well-organized and well-documented manner. This type of writing is not about “flowery” writing that one might find in a magazine article.

1. Do not use contractions.

2. Do not use “I believe,” “I think,” “I feel,” nor “researchers believe,” “researchers think,” or “researchers believe.” Technical writing is reporting the research, not supposing what researchers believe.

3. Do not give human characteristics to non-humans or inanimate objects (i.e., anthropomorphism). Educators and leaders have acted, but the organization or school has not. Researchers have reported . . . not, “research has demonstrated,” “researchers proved,” or “the data showed.”

4. Do not use “today,” or “currently.” If a date must be given, be time specific. Ten years from today when someone reads the work, it will not be “today.”

5. Be very careful about using words like *should* or *must*. An EdD student should not impose his or her opinion on anyone else. If you already know what someone must or should do, a bias is showing, and there is no reason to conduct the study.

6. Do not use indefinite personal pronouns (e.g., me, my, our, we, us, them, they, or it). Who is “we”? Be definitive, and use researchers, leaders, or writers.

7. If you use the term “researchers”, you must have plural references.
8. Text within the dissertation should not be **boldfaced**.

9. Use past tense and third person. Make sure to have consistent verb tense throughout the document, particularly from chapter to chapter. The methods discussed in Chapter I will be written in future tense for the dissertation prospectus and dissertation proposal, but the verb tense will be changed to past tense after the study has been conducted. Chapter II will be written in past tense always. Chapter III will be written in future tense for the dissertation proposal, but the verb tense will be changed to past tense after the study has been conducted. When the dissertation is ready for final defense, the entire dissertation must be written in past tense, except conclusions and implications.

10. Be consistent. If the word “teacher” is used to describe the population in the first paragraph, use “teacher” throughout the document.

11. Limit direct quotes. Paraphrase. An EdD dissertation is not a *collection of quotes*, but rather the reporting and paraphrasing of what has been read in one’s own words.

12. Limit the use of acronyms and jargon. Be sure to spell out, or define, the first time an acronym is used in the text. After defining the acronym, utilize that acronym throughout the document. Make sure that any jargon is explained correctly and accurately.

13. “Data” is always plural (e.g., data are…).

14. Do not use secondary sources. For example, do not quote, “Smith and Jones, as cited in Jones and Smith (2007) . . .” These sources should be utilized to locate primary sources.

15. Use active voice as much as possible.

16. Do not use colloquial or ambiguous words.

See the [Format and Style Checklist for the EdD Dissertation](#) on the [EdD Program Website](#) for further assistance with formatting.
The dissertation prospectus is a substantial review and critical analysis of the literature on a topic. The review is both descriptive and evaluative of an area of inquiry of scholarly work conducted in the past. The review generally identifies an emphasis on a topic, theme, or point that evolved as a result of analysis of literature. Typically, a research question has been proposed to guide the review. The review is a report of primary or original scholarship of mostly written documents. It is not a summary of the literature, but a thoughtful and comprehensive analysis and synthesis of the literature.

The dissertation prospectus is designed to provide the EdD Dissertation Committee with information comparable to, or greater than, that obtained from comprehensive doctoral examinations. With the dissertation prospectus, the committee can make judgments about the quality of the EdD student’s content knowledge while providing the student with an excellent beginning to the dissertation. Therefore, the dissertation prospectus must demonstrate that the EdD student has technical mastery of subject and knowledge of research techniques sufficient enough to carry out independent, significant scholarly work that will be a meaningful contribution to educational knowledge, policy, and/or practice. The EdD student must also demonstrate high standards for quality investigation of the literature and knowledge base. In addition, the dissertation prospectus must reflect a problem, issue, or study that is compatible with the specialization area of the EdD student. Lastly, the student must demonstrate to the EdD Dissertation Committee that he or she is versed in the research methods sufficiently and able to conduct the proposed research.

In consultation with the EdD Dissertation Committee, the EdD student will write a dissertation prospectus, including the components of Chapters I and II. Throughout the writing
process, the student must work closely with his/her EdD Dissertation Committee. The dissertation prospectus must be submitted to the Committee through the Chair at least 2 weeks prior to the scheduled prospectus defense. No further work on the dissertation should be undertaken by the EdD student until the dissertation prospectus is defended successfully and approved by all members of the EdD Dissertation Committee. This procedure protects the interests of the EdD student, EdD Dissertation Committee, and CSU. At the prospectus defense, a discussion of a tentative timeline can be helpful for the EdD Dissertation Committee and the student.

The EdD student should remember that the primary purpose of the dissertation prospectus is to convince the EdD Dissertation Committee that the student is familiar with the literature in the area to be researched and that this proposed research will fill a gap in the empirical literature. The proposed research should advance the current theoretical literature, empirical literature, and knowledge base meaningfully and uniquely. An additional consideration for the prospectus is that the EdD student has outlined a research topic and methodology that can be completed and that will make a contribution to the knowledge base of curriculum studies and/or educational leadership. The dissertation prospectus (i.e., Chapter I and Chapter II) typically will be from 75 to 100 pages in length. The EdD student should include a title page and initial Table of Contents at the beginning of the dissertation prospectus and a Reference section at the end of the dissertation prospectus.
The first chapter of the EdD dissertation provides the setting, context, rationale, importance, and practical or theoretical foundation for the study. Chapter I is the most important chapter of the dissertation because everything else in the dissertation study builds on the foundation established in this chapter; however, Chapter I should be written after the literature has been reviewed and understood to provide a reason and rationale for the research. This chapter should be arranged in the following order to justify why the research should be conducted:

1. Background of the Problem
2. Statement of the Problem
3. Purpose of the Study
4. Research Questions (and Hypotheses)
5. Theoretical and/or Conceptual Framework
6. Methodology Overview
7. Delimitations and Limitations
8. Definition of Terms
9. Significance of the Study
10. Summary
**Background of the Problem**

This section should begin by framing the study in the larger context of education. This doctoral degree is in education and must have education as the research focus. The length and depth of this section will vary depending on the nature and topic of the study. Sufficient coverage of the literature should be presented here to acquaint the reader with the topic and the importance of the topic. A more thorough literature review will be presented in Chapter II. The literature in Chapter I is a synthesis of the review of literature reported in Chapter II. Remember to document thoroughly the information and research presented in this section. Very few researchers have original thoughts or ideas. Therefore, the EdD student must give credit using appropriate citations, particularly in formal writing, to the source(s) of thoughts or ideas.

The background of the problem prepares the reader for the statement of the problem to follow and should be written concisely to prepare the reader for the problem thoroughly. The writer should set the study in the large context of education and successively move to the small points where the writer will identify the gaps that the study will address. Sequentially, this identification leads the writer to the next step, which is the statement of the problem. The EdD student should not rely on only two or three major researchers in this section. Use multiple researchers to discuss various viewpoints related to the research topic. This section should set the stage for the research.

**Statement of the Problem**

In this section, the EdD student must be able to convince the EdD Dissertation Committee of the viability and importance of the dissertation topic. The topic must be framed in a manner that will facilitate conducting the study and lead to responsible results. The problem must be clearly, meaningfully, and logically structured. The responsibility of the EdD student is
to convince the EdD Dissertation Committee of the problem and the need to complete the study by clearly, concisely, and coherently describing the problem to be researched. In other words, this section must answer the question: *What is the problem that is being researched, and why does the problem exist?*

As an EdD student, he or she may have an idea, maybe even a topic; however, if the problem cannot be well articulated, the dissertation will lack a solid foundation. The student should be able to articulate clearly the void in the literature or the knowledge base that will be filled by the completion of the dissertation research. *If there is no significant problem to be addressed, there is no need for the dissertation.* There are six characteristics of an educational problem.

1. The problem must be “real” and very specific within the framework of education.
2. The magnitude of the problem must be sufficient to justify dissertation research.
3. The problem must be “measurable” to some extent.
4. Must answer the "So what?" question.
5. The problem must function within the context of education.
6. Make sure the topic is doable.

A three-step process for delineating the problem statement will provide structure for the section. First, answer the question, *“What is known about the topic?”* Second, answer the question, *“What is not known about the topic?”* Third and lastly, answer the question, *“What does the researcher want to know about the subject?”* In other words, what is the relationship between the known and the unknown that the researcher desires to answer? These answers will lead directly to the next section because the statement of the problem section is followed by the
purpose of the study. See one of the dissertation checklists on the EdD Program Website for a template to begin the writing process.

**Purpose of the Study**

In this section, the EdD student should state the overall intent of the study (e.g., examine or explore). This intent should align with the statement of the problem. Next, the specific research design for either quantitative, qualitative, or mixed methods research should be identified. If the student plans to conduct a mixed methods research design, then a rationale for utilizing a mixed method approach should be provided. Lastly, the purpose of the study could include the participants, setting, and measures along with the constructs, variables, and/or concepts. See one of the dissertation checklists on the EdD Program Website for quantitative, qualitative, and mixed methods templates.

**Research Questions/Hypotheses**

This section may be written as either research questions or hypotheses, depending on the type of study. Typically, hypotheses are used for experimental, quasi-experimental, causal-comparative, and correlational studies. The most important aspect of the dissertation is located in this section: “What do I really want to know?”, “What are the questions that the research will attempt to answer?”, and “What are the preliminary hypotheses concerning the possible outcomes of the research?” The following prompts outline the criteria for developing research questions.

1. Proposed question(s) should be “smart”
   
   **S**pecific: Does it include specific variables or concepts?
   
   **M**easurable: Can it be evaluated (i.e., methods)?
   
   **A**ligned: Does it align with the problem and purpose?
**Realistic:** Do I have the resources to answer it (i.e., feasible)?

**Timely:** Is it relevant to current issues in research?

2. **Overarching question**
   a. Contains all descriptors.
   b. Written as succinctly as possible.

3. **Developing Research Question(s)**
   a. Based upon interest (What do you desperately want to know?)
   b. Feasibility (Is the proposed research doable?)
   c. Ethics (Is the research ethically doable?)

4. **Research Design**
   a. What is the question to be answered? What does the researcher want to learn from this research? What is driving the researcher to ask this question?
   b. Who will answer this question (i.e., participants)?
   c. What information/data will these sources provide (i.e., data collection)?

5. **Research Questions Format**
   a. Must be written as open-ended questions.
   b. Cannot be written to be answerable with “yes or no.”

6. **Hypothesis Format**
   a. Must include the phrase “statistically significant”.
   b. Must include the variables used to measure the constructs defined in the research question(s).
   c. Must include the unit of analysis (e.g., students, teachers, or faculty).
   d. Should be written in present tense.
The research questions section should build upon the one overarching question presented in the statement of the problem and then should expand to the specific questions the research is intended to answer. No question should be listed here that will not be addressed by the research. The following seven guidelines summarize the research questions development process.

1. Research questions should be written as specifically as possible yet stated concisely and succinctly.
2. Research questions can be presented in numerical lists.
3. Research questions should align with the presented literature, statement of the problem, and purpose of the study, which precede them in the dissertation.
4. Research questions should not contain or give evidence of research bias.
5. Qualitative dissertations use research questions only.
6. One overarching research question should guide the research study.
7. Supplemental, supporting, or sub-questions should be directly tied to the overarching question.

See one of the dissertation checklists on the EdD Program Website for templates and examples of quantitative, qualitative, and mixed methods research questions along with hypotheses.

**Theoretical and/or Conceptual Framework**

**Theoretical Framework**

A theoretical framework refers to a specific theory that an EdD student chooses to guide the dissertation research. Imenda (2014) defines a theoretical framework as “the application of a theory, or a set of concepts drawn from one and the same theory, to offer an explanation of an event or shed some light on a particular phenomenon or research problem” (p. 189).
Conceptual Framework

An EdD student may decide to synthesize theoretical and empirical literature. This synthesis is referred to as a conceptual framework, which could be used instead of a theoretical framework. Imenda (2014) defines a conceptual framework as “an end result of bringing together a number of related concepts to explain or predict a given event, or give a broader understanding of the phenomenon of interest – or simply, of a research problem” (p. 189). A conceptual framework derives from concepts, and a theoretical framework derives from a theory. For the conceptual framework, a graphic should be presented to depict the anticipated relationships among concepts for the student and the EdD Dissertation Committee. (See Figure 5.)

![Conceptual Framework Graphic Example]

Figure 5. Conceptual Framework graphic example.

Methodology Overview

What are the research methods suggested by the researcher? What research design will be selected? Why should the research be conducted utilizing the method selected? What are the characteristics of the population and/or sample for the study? How will the data be collected? Are the procedures quantitative, qualitative, or a combination of the two? What qualitative research techniques, quantitative statistical analysis methods, or mixed methods will be used? What are the justifications for using the selected procedures? This section should be logically and succinctly stated because it becomes the basis for Chapter III. This section should be
thoroughly documented using citations to support any descriptions, explanations, and justifications. Although this section will be expanded and ultimately will become Chapter III, a brief methodology section should remain in Chapter I to help set the stage for the research.

**Delimitations and Limitations**

*Delimitations* refer to those conditions or elements that limit the scope and define the boundaries of the field and are in the control of the researcher. *Limitations* refer to the conditions or elements related to research design, internal validity, and external validity, which are beyond the control of the researcher. Limitations could be as varied as the methodology used or the population of the study. The EdD student should be careful to define all the possible limitations of the study in order to provide additional justification for conducting the study. List only the major assumptions that drive the research or may influence the outcome of the dissertation. Could the limitations affect the anticipated results of the study? What reasonable actions can address these limitations within the methodology?

**Definition of Terms**

The EdD student should provide a concise definition of key terms, abbreviations, variables, constructs, and/or concepts used in the study. General, generic educational terms need not be included; however, any term, which has a special definition for the study or any term used differently from empirical literature, should be included in this section. In addition, any terms that are unique to the subject of the research should be included. The student is cautioned about the use of educational jargon that is not always known to faculty members from other disciplines. Definitions should clarify any word, term, or concept that may have multiple meanings. Each definition should have at least one citation from empirical literature. The definitions should be reported as a list in alphabetical order with the term in italics.
Significance of the Study

The EdD student should describe why the study is important: (a) for the population that will answer the questions of the research, (b) for the curriculum, educational leadership, and/or higher education administration profession, (c) for the improvement of educational organizations, and/or (d) for the benefit of society. The EdD student should also include a section that specifies why the proposed research is important to the EdD student. What makes this study important to the student, to the university, to the profession, and/or to society? Why is the study sufficiently compelling to justify the time, effort, finances, and human resources that are to be committed? Simply, what makes this study unique? What does the EdD student wish to accomplish? Who will be benefited by the completion of this study? A logical tie exists between this section and the “Implications of the Study” section of Chapter V. If an individual or group is identified as being important in this section of Chapter I, they should also be addressed in Chapter V.

Summary

Chapter I should conclude with a clear, concise restatement of the major elements of the chapter. For example, the statement of the problem should be restated briefly as well as the importance of the study and how the study will be conducted. The summary should provide the reader with a focus for the study. No references should be included in the summary because it is a summary by the EdD student of the work in Chapter I.

Reference

Chapter II of the dissertation prospectus, and, eventually the EdD dissertation, is a report of the research and literature specifically related to the research topic. A comprehensive review of all relevant literature on the topic should be completed before research methods are designed. This review helps to avoid duplication of past research and address weaknesses of past instruments. With few exceptions, the review of related research will rely primarily on current references, typically within the past 5 years. This guideline helps to ensure that the research conducted on the topic is the most current research available. In many dissertations, however, classic works, particularly if a historical documentation of the topic is used, may also be appropriately included and referenced. Additionally, for topics with little to no current research, studies older than 5 years would need to be included.

A literature review surveys scholarly articles, books, and other sources (e.g., dissertations, and conference proceedings) relevant to a particular issue, area of research, or theory, providing a description, summary, and critical evaluation of each work. The purpose is to offer an overview of significant literature published on a topic. Similar to primary research, development of the literature review requires four stages:

1. Problem formulation—which topic or field is being examined and what are its component issues?
2. Literature search—finding materials relevant to the subject being explored.
3. Data evaluation—determining which literature makes a significant contribution to the understanding of the topic.
4. Analysis and interpretation—discussing the findings and conclusions of pertinent literature, identifying the gaps in the literature, why is it important to fill that gap, how filling that gap will lead to enhancement in current theoretical, empirical, and/or knowledge of the research topic, and how the current study will fill the gap.

Chapter II should be arranged in the following order: Introduction, headings related to topic from broad to more specific, and Summary. Consult with the content expert and/or Chair of the EdD Dissertation Committee for guidance with content development.

**Purpose of the Literature Review**

A literature review is both descriptive and evaluative of an area of inquiry of scholarly work completed in the past. The review generally identifies some topic, theme, point that the researcher wants to emphasize. The review is a report of primary or original scholarship of mostly written documents. It is not merely a summary of the literature, but a thoughtful and comprehensive analysis and synthesis that places the topic in the context of work in the field. A good review results in a synthesis of the literature placing the topic in an updated context of established work in the discipline.

Conducting a literature review, including the processes of searching, reading, interpreting, analyzing, critiquing, integrating, and summarizing knowledge in an area of study, serves several purposes both in one’s degree program coursework and in one’s professional role. Among these purposes are developing professional-quality writing skills; using computer software and hardware applications as tools in personal and professional environments; strengthening information literacy skills in identifying, locating, evaluating and using relevant information; advancing critical thinking skills, particularly in the areas of analysis, integration, evaluation, synthesis, and generating new knowledge; and critiquing scholarly literature,
including theoretical and empirical literature (current theories and research in a field) as well as methodological research. The review of literature section has three primary purposes:

1. To demonstrate to the reader (at the prospectus and proposal stages, the EdD Dissertation Committee; at the dissertation stage, any interested professional) that the researcher knows what he/she is talking about,

2. To educate the reader on what prior research has been conducted in the problem area,

3. To provide the basis for theoretical/conceptual framework, research design, and data analysis plan of the study. Thus, the literature should not simply be reported, but it should be subjected to a critical analysis.

The review of literature should include discussion of the following points.

- Describe in detail the background or context of your study in terms of the issues themselves and related research.
- Discuss and describe the financial, historical, legislative, organizational, and political context of the problem area in detail.
- Discuss the results of prior related empirical studies.
- Provide a literature-based rationale for the choice of concepts and theoretical frameworks employed in your study
- Discuss the rationale for the choice of constructs, variables, concepts, research methodologies, and definitions to be used in your study,
- Discuss the rationale for any hypotheses/research questions to be tested.
- Provide a summary of the review of the literature, particularly with emphasis on those studies that most influenced your research design. Point out the areas of the literature on your topic area where the research is weak or lacking altogether (i.e., gaps).
Additional considerations include:

1. Demonstrate to the reader that you have a comprehensive grasp of the field and are aware of the important historical/legislative and recent substantive and methodological developments regarding your research topic.

2. Examine and discuss prior research studies with several purposes:
   
a. What were the results of the prior research studies; specifically: what did they find? How is that study similar to or different from other studies? You do not want to do the same study that has already been done unless you have a good reason. How will your study be similar? More importantly, how will it be different?

b. What was the purpose, research design, participants, data collection, and data analysis procedures of the prior studies? How are they similar or different? Is there a "standard" research design that has been used? What variables did other studies use? What are the variable operational definitions? Did they use the appropriate statistical analysis? Did they conduct the analysis appropriately? Critically discuss the research methods of the study, and evaluate the usefulness of the results of the study based on the limitations and recommendations for future research.

c. Avoid statements that imply that little research has been conducted in the area or that what research has been conducted is too extensive to permit easy summary. Statements of this sort usually are taken, and often rightly, as indications that the researcher is not familiar with the empirical literature.
d. See one of the dissertation checklists on the EdD Program Website for the dissecting articles spreadsheet. This spreadsheet can assist the EdD student with isolating the purpose of the study, research design, participants, measures, data collection procedures, data analysis procedures, findings, implications, limitations, and future research within an empirical article.

The literature review should answer the following questions:

1. What is already known about the immediate area concerned?
2. What are the characteristics of the key concepts, constructs, and/or variables?
3. What are the relationships between these key concepts, constructs, and/or variables?
4. What are the existing theories?
5. Where are the inconsistencies or other shortcomings in knowledge and understanding concerning the topic?
6. What views need further research?
7. What evidence is lacking, inconclusive, contradictory, or too limited?
8. What contribution can the proposed study be expected to make?
9. What research designs or methods seem unsatisfactory?

The literature review serves several important functions:

1. Ensures that the EdD student is not “reinventing the wheel”.
2. Gives credit to those theorists/researchers who have laid the groundwork for the research.
3. Demonstrates the EdD student’s knowledge of the research problem.
4. Demonstrates that the EdD student understands the theoretical and research issues related to the research question.
5. Demonstrates the EdD student’s ability to evaluate relevant literature information critically.

6. Demonstrates the EdD student’s ability to integrate and synthesize the existing literature.

7. Convinces the reader that the proposed study will make a meaningful and substantial contribution to the literature (i.e., resolving an important theoretical issue or filling a major gap in the literature).

**How to Begin the Literature Review**

**Selecting a Topic**

The topic area may come from identification of practical problems or patterns of incidents observed from one’s own work experience or problems/issues identified from seminars, workshops, discussions with professionals, or reading future research recommendations within journal articles and/or previous research dissertations or theses. The EdD student may want to explore more about a commonly used technique, strategy, or intervention. He or she may be skeptical about some aspect of the information or knowledge about a topic. Perhaps, there is interest in reviewing factors associated with variations in certain outcomes (educational outcomes, productivity, or job satisfaction). EdD students with theoretical inclinations may be interested in further exploration of concepts (and relationships between the concepts) within a given theory. Inconsistencies in the literature may exist regarding some particular topic, disputed or contradictory statements, and incomplete evidence or dated reports. Think about the problems in education, the processes in education, and the practices in education. Typically, one’s interest in a topic is really a formulation of a research question about the topic. Initially, consider several topics. The EdD student should conduct a brief library search first to see what research has been conducted. The student may have selected
a topic where there is little or no research or theoretical formulations about the topic. Perhaps, the topic has been extensively studied, and the answers to questions about the topic are already available. The EdD student should try to find at least one scholarly article that is helpful before submitting the topic for approval. The topic will most likely need to be kept fairly narrow to make sure the research is doable and manageable. The topic should also be of interest to the EdD student.

Some students tend to focus on one overarching perspective or research orientation, and some students want to work on a quantitative or a qualitative dissertation only without regard for the research question and the literature review. Allow the problem statement, research questions, and the literature review to help guide and direct the type of research methods employed in the EdD dissertation.

The following basic steps are suggested.

1. Collect appropriate articles, read critically and think about the best way to present the topic.

2. Build (draw) a visual picture of the concepts – sub-concepts, author with year, which is a literature map.

3. Distinguish between the major classifications of literature obtained (i.e., theoretical and empirical literature). Also, recognize other scholarly literature, including review articles, methodological articles, and case studies.

4. First, read the easier, more current, and most closely related literature to the topic.

5. For theoretical literature (appearing in the literature review section of an empirical study, or appearing in an article or book that describes a theory)
a. Identify major concepts, themes, conceptual frameworks, conceptual model, and theories presented

b. How has the theory been applied?

c. What are discussions (i.e., conclusions, interpretations, and recommendations) pertinent to the topic?

d. Look at the list of references in this literature to see if there is something of interest.

6. For original empirical studies, briefly review the abstract to determine relevance, the introduction (i.e., researcher's purpose, problem, key literature, conceptual/theoretical frameworks, and hypotheses), methods, the tables/graphs in the results (i.e., the findings) and the discussion (i.e., conclusions, interpretations, and recommendations). Label these components much like in the research critique. Document any strengths or weaknesses found within the article. Examine the list of references to see if there is something of interest.

7. The more one reads scholarly literature, the better writer one will become. A good writer has read many examples of the relevant topic in scholarly and refereed journals.

8. Types of research literature used in Chapter II of the prospectus and the EdD dissertation:

   a. *Empirical* (presentation of data)

   b. *Primary* (scholarly or presentations)

   c. *Secondary* (references or quotes from other publications)

   d. *Essay* (enlightened summary)

   e. *Descriptive* (narrative description)

   f. *Experience* (report of experience or information based upon experience)
g. *Expository* (report of experiences or dramatic presentation)

**Searching for Literature**

A good review of the literature is dependent upon knowledge of the use of indexes and abstracts, the ability to conduct exhaustive bibliographic searches, and ability to organize the collected data meaningfully. Other skills needed include (a) Information literacy skills retrieval methods and scholarly communication; (b) Recognition of scholarly and peer reviewed journals; (c) Identification of concepts, themes (key words) or descriptors; and (d) search the relevant databases for research on the topic. Focus the search on *primary* scholarly works, including empirical, theoretical, critical/analytic, or methodological inquiry. Review dissertation abstracts. The EdD student should read the dissertation abstracts before requesting the materials because certain abstracts may provide enough information to help you decide on the material’s relevance. Search GALILEO database, e-journals, and other online resources located in CSU library. Schedule a research consultation appointment with CSU Library Liaison for COEHP, Michelle Jones (jones_michelle@columbusstate.edu).

**Topics.** Every topic that will be addressed in the findings must be covered in Chapter II. A good technique is to list all the elements of the overarching research question. These elements must be included in Chapter II. Although the literature may be scarce in some areas, the EdD student is reminded to consider the importance of relating all possible topics in Chapter II. If a survey format is used for data collection, the context of each item on the survey must be included in the literature review. This review is necessary to illustrate the reason for including the item in the survey and to give justification to soliciting the information in the item. (See Chapter III.) The EdD student must remember that all discussion of findings in Chapter V must tie to the literature review of Chapter II.
**Variety of sources.** Many EdD students tend to become overly reliant on one or two authors as they conduct the literature review. Such over-reliance leads to a very narrow study with limited significance, generalizability, and importance. The EdD student is encouraged to spend ample time in a variety of databases to saturate the topic. Often, students develop a narrow perspective on the availability of databases and sources of information. The EdD student should examine all possible databases for information and sources to include in the literature review. Often education uses information and research from other disciplines including business and psychology. Databases for these disciplines can be consulted for possible inclusion in Chapter II. An over-reliance on the ERIC database for education or Google Scholar should be avoided. EdD students who need assistance with databases should contact their Chair of the EdD Dissertation Committee or contact the Library for information. A database research log is helpful to track which databases and keywords have been searched. The log will be helpful when writing the saturation paragraph for Chapter II, too. (See the example in Figure 6.) See one of the dissertation checklists on the EdD Program Website for a database research log file.

<table>
<thead>
<tr>
<th>Date</th>
<th>Database Name</th>
<th>Search Terms</th>
<th>Search Limits</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/1/2018</td>
<td>EBSCOhost</td>
<td>portfolio assessment AND (higher education OR college OR university)</td>
<td>• Scholarly/Peer Reviewed</td>
<td>278 results</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Date range 2007-2013</td>
<td>Exported 40 citations to RefWorks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Need to search for articles specific to special education programs</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 6.* Example Database Research Log (*Source:* Northcentral University Library).
**Introduction**

The EdD student should provide a short synopsis of the research topic. This short synopsis is important to link the material in Chapter I to the literature review in Chapter II and to provide the direction for Chapter II. Often, the Summary from Chapter I will provide the stimulus for the Introduction in Chapter II, not directly quoted, but used as a means of identifying the research topic. What is the problem and purpose of the study? In addition, the EdD student should outline the major sections within the Review of Literature.

Lastly, the student should provide a list of databases along with key terms used to locate the literature within Chapter II. Often, this type of paragraph is referred as to a *saturation paragraph*, meaning the student demonstrates how he or she saturated the literature. See one of the dissertation checklists on the [EdD Program Website](#) for an example of a saturation paragraph.

**Theoretical and/or Conceptual Framework**

**Theoretical Framework**

This section of Chapter II should identify the theory and provide the original source. The EdD student should state the components of the theory and include empirical literature involving the theory and how the theory relates to the study. In addition, the student should explain how the theory relates to your problem and research question using empirical literature. Lastly, the student should provide a rationale for selecting the theory as the theoretical framework for the EdD dissertation.

**Conceptual Framework**

In this section, the EdD student should identify and define the individual concepts of the conceptual framework. For each concept, the student should synthesize the empirical literature
by key theorists, philosophers, and/or researchers. Describe the conceptual framework using empirical literature, then state the relationship between each component within the conceptual framework. Lastly, the student should explain how the conceptual framework relates to your problem and research question using empirical literature.

Writing Tips for the Literature Review


2. Remember to add literary sources to the reference list in appropriate APA (6th edition) format as the paper is developed. Do not leave this task to be completed at the end!

3. Paraphrase as much as possible and avoid long strings of quotes. The EdD student may want to get in the habit of paraphrasing as the material is entered on a Word file, but double quotation marks must always be used when directly quoting followed by the citation and page or paragraph numbers.

4. Write in past tense.

5. Avoid using first person (i.e., I, me, we), and use gender-free language. Rather than he/she, indicate “they”.

6. In the literature review, the writer is reporting objectively what is published previously. Exclude personal opinions, conclusions, or recommendations.

7. Read and write carefully. Distinguish between an author’s theorizing and suggesting versus the author’s research findings. For example: Smith (2002) suggested….. versus Smith (2002) reported that . . ..

8. In presenting results from empirical studies, methodological studies, and case studies, be careful not to use terms such as Jones (2001) proved . . . “Proof” is extremely compelling evidence of some test of the truth, validity, or genuineness. As a rule, social
science research results are tentative. One may say: researchers supported, researchers provided evidence that . . ., researchers suggested . . ., or the researcher confirmed or disconfirmed . . . .

One of the best methods for writing Chapter II is to outline the chapter and follow that outline. The EdD dissertation should contain a clear focus on the research statement, research question(s), and constructs, variables, and/or concepts under investigation. The following steps outline how to create a literature review.

1. Frequently review the guidelines for the literature review, including Critical Reading, Interpreting, Analyzing, Critiquing, and Organizing.

2. Organize in a logical, meaningful and orderly manner. Use frequent APA level headings to connect main ideas and topics covered in a logical sequence. See the APA (6th edition) Publication Manual and the Formatting chapter within this guide for examples).

3. Generally, related articles and research findings should be presented together.

4. Discuss major studies or seminal writings in detail. Describe strengths and weaknesses of methods used in important studies so that readers have enough information to weigh the results and draw their own conclusions.

5. When reading and evaluating the research studies for possible inclusion in the review, the EdD student should determine the relevance, worth, and significance of studies to the topic.

6. A good review of the literature is more than simply a summary of the research. The review of literature is both a critical evaluation of the existing research and a synthesis of that work. The EdD student will need to synthesize the literature in some logical manner, which is a skill that develops with practice. As things are written down, they should be
reviewed to see if they are being integrated, evaluated, and synthesized. Are opposing views, contradictory findings, and/or gaps in the literature (what questions are being suggested) being identified? Is clarity being brought to the research issues? The literature review is not a reporting of individual studies in sequence. The literature review of Chapter II must be a synthesis of major concepts/issues in the field or area of study.

7. While summarizing, the EdD student will also be analyzing, critiquing, and relating each literature source logically to a concept or theme related to the area of inquiry.

8. EdD students are cautioned about including excessive direct quotes. Although some quotes are essential and needed to make the point of the research, excessively lengthy quotes diminish from the quality of the work and give the impression that the EdD student is not able to articulate the point without relying on someone else’s words.

Unfortunately, most EdD students’ literature reviews suffer from the following problems:

   a. Lacking organization and structure
   b. Lacking focus, unity, and coherence
   c. Being repetitive and verbose
   d. Failing to cite the most influential research
   e. Failing to cite the most recent research
   f. Failing to evaluate the cited research critically
   g. Citing irrelevant or trivial references
   h. Depending too much on secondary sources

There are four primary criteria for determining the adequacy of the review of literature:

1. Does it contain enough information to inform and enlighten the reader?
2. Is it clear in every regard?
3. Is it correct in style and accuracy?
4. Is it as concise as possible while meeting the complete and comprehensive criteria?

**Bias**

The literature review should be unbiased and examine both sides (and maybe several sides) of the issue, if possible. For example, research that both supports and contradicts the student’s hypotheses should be presented for a complete understanding of the research topic. By describing both the “pros” and “cons” of a particular topic the EdD student lends credibility to the dissertation and highlights the importance of the topic to education. Research that is biased often has limited usefulness to the field of educational research and/or educational practice. Bias is demonstrated in several ways, and the student should read and edit carefully to eliminate bias to the extent possible.

**Length of Chapter II**

Chapter II normally runs between 50 and 75 pages in length. This length may vary depending on the topic being researched and the abundance or absence of high-quality research that can be utilized by the EdD student. Some topics have been more substantially researched than others. Quality of the research reported is critical; this review is about quality of the literature reviewed and not the quantity examined and reported. The EdD student should include a minimum of 50 references with at least 40 references from current (within the past 5 years) peer-reviewed journal articles from various databases.

**Concept Analysis Chart**

The EdD student should use the Concept Analysis Chart efficiently as a guide to the literature reported in Chapter II. A Concept Analysis Chart outlining the major research findings
reported in Chapter II should also be included in this chapter. The chart(s) be included in Chapter II either with the topic review or at the end of the chapter. The charts must be treated as any other chart or table and must be discussed in the chapter text. Figure 7 on the following page provides an example of a concept analysis chart from Dr. Leslie McCracken.

<table>
<thead>
<tr>
<th>STUDY</th>
<th>PURPOSE</th>
<th>PARTICIPANTS</th>
<th>DESIGN/ ANALYSIS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onwuegbuzie &amp; Seaman (1995)</td>
<td>Compare test performance under timed and nontimed conditions</td>
<td>26 graduate students from non-math oriented disciplines</td>
<td>Quantitative: t-test</td>
<td>• test anxiety deflated scores and was exacerbated when test was timed</td>
</tr>
<tr>
<td>Gazella et al. (1998)</td>
<td>Investigate relationship between stress scores and learning strategies</td>
<td>126 undergraduates of psychology class</td>
<td>Quantitative: inventories compared using Pearson product-moment correlations</td>
<td>• test anxiety creates physiological and emotional reactions</td>
</tr>
<tr>
<td>Hong (1999)</td>
<td>Examine relationship between test anxiety and perceived test difficulty to actual test performance</td>
<td>208 undergraduates enrolled in statistics</td>
<td>Quantitative: data analyzed using the structural equation modeling</td>
<td>• test anxiety negatively impacts test performance</td>
</tr>
<tr>
<td>Lee (1999)</td>
<td>Examine the effect of test anxiety on the working memory</td>
<td>Students in a psychologist: 12 high-anxious students and 12 low-anxious</td>
<td>Quantitative: Test Anxiety Inventory; ANOVA was conducted</td>
<td>• whether test difficulty was perceived or actual, it had a significant impact on the students’ level of anxiety</td>
</tr>
</tbody>
</table>

*Figure 7. Example Concept Analysis Chart for studies related to test anxiety.*

**Summary**

In this section, the EdD student should summarize the major themes from Chapter II concisely. A substantial summary should conclude Chapter II to give the reader a thumbnail
sketch of the major areas addressed by the literature review. A good rule of thumb is to provide enough information for the reader to determine the pros and cons of the topic. The summary should include no new information. Next, the student should summarize what is known about the problem and what is not known about the problem. Lastly, the student should identify at least one gap in the literature and explain how the current study will fill the gap.
Chapter III is a factual report of the methodology to be used to collect data reported in the research study. The purpose of Chapter III is to give a detailed plan the EdD student will use to carry out the research required for the EdD dissertation. The student should thoroughly explain the methodology and/or procedures used in conducting the study. Chapter III should be detailed enough for another research to replicate the study. Particular attention should be paid to the procedures employed in designing any research instruments that will be used in the study, specifically their validity and reliability. The EdD student should reference Chapter III, including but not limited to, definitions, rationales, and items in the instrumentation or directions for the study. This chapter should be arranged in the following order:

1. Introduction
2. Research Design
3. Role of the Researcher
4. Participants
5. Instrumentation
6. Intervention (if utilized)
7. Data Collection
8. Data Analysis
9. Summary

Alignment is an essential requirement for completing an EdD dissertation successfully. When developing Chapter III, each component must align with the statement of the problem, purpose of the study, and research questions. Figure 8 provides an example of a design alignment tool.
The demand for STEM graduates has increased, but the number of incoming freshmen who declared a STEM major has remained stagnant. High school courses, such as calculus, can open or close the gate for students interested in careers in science, engineering, mathematics, and technology.

**Purpose of the Study**
The purpose of this study was to determine if high school mathematics preparation was correlated to academic success in the pre-engineering curriculum at the post-secondary level.

**Research Question**
What is the relationship between high school mathematics preparation and quantitative grade point average in a pre-engineering curriculum?

**Research Design**
correlational

**Data Collection Measure**
The College Freshman Survey (Halpin & Halpin, 1996)
- Self-reported final course grades for high school mathematics courses (i.e., algebra I, algebra II, geometry, trigonometry, and calculus)
- Self-reported standardized test scores (i.e., SAT quantitative and ACT math scores)
- Self-reported interest in high school mathematics courses (i.e., algebra I, algebra II, geometry, trigonometry, and calculus) using 4-point scale

Institutional Data
- pre-engineering quantitative final course grades after the first attempt (i.e., math, science, statistics, and computer science)

**Independent Variable (categorical or continuous)**
Adjusted standardized test scores, algebra I course grade, geometry course grade, algebra II course grade, trigonometry course grade, calculus course grade, and interest in high school mathematics (continuous)

**Dependent Variable (categorical or continuous)**
Cumulative quantitative GPA (continuous)

**Data Analysis**
Multiple Regression

---

**Introduction**

The EdD student should restate the problem and purpose of the study and tie this chapter to the preceding chapters. Also, outline briefly the components of Chapter III. The methodology section of the EdD dissertation should build on the description of methods outlined in Chapter I.
Research Design

This section should also include operational definitions of the variables in the study.

Research design—Why was one type of research chosen over another? Why was the qualitative used versus quantitative? What was the research rationale for the design? Were other approaches discarded? If so, what? Do you have Quantitative, qualitative, or mixed methods? Describe why. If Quantitative, which design (e.g., experimental, quasi-experimental, causal-comparative, correlational)? If Qualitative, which design (e.g., phenomenology, ethnography, case study, narrative)? If Mixed Methods, which design (e.g., exploratory, explanatory, convergent, embedded, multi-phase)? Describe why you chose the design you selected. The assumption should not be made that the reader has prerequisite knowledge of research methodology or terminology. Therefore, use references to illustrate knowledge of research methodology used in the dissertation. A simple chart will highlight and confirm that the appropriate research design will answer the research questions. (See Figure 9.)

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Instrumentation/ Analysis</th>
<th>How will strategy answer research question?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 9. Research Design Confirmation Table.*

Role of the Researcher

Being objective during your data collection and data analysis procedures reduces the chances of having your own personal values, biases, and beliefs affect the observations,
responses, or findings. Clearly, your values and beliefs will influence your decisions from the start—what to study, when, how, whom to talk to, what resources you will use, and in many other ways. No studies of education are ever value-free. The important thing about objectivity is for you to recognize and state the choices you have made and why you made them and to provide the opportunity for your respondents to answer or behave in a situation in the way they choose, expressing opposing values and biases if they so choose. In this section, the EdD student should define and explain his or her role in the current study, whether observer, participant, or both. Also, the student should describe any personal or professional relationships the researcher may have with the potential participants (e.g., supervisory, evaluation, and/or instructor of record).

**Participants**

**Population and Setting**

Length of this section will vary from dissertation to dissertation. The EdD student is obligated to define the population and setting represented by the study precisely. The sample unit of analysis needs to be specified (e.g., school district, school building, student, teacher, or principal as the “unit of analysis”) as well as the sampling method (e.g., random or purposive). Who is the population that will provide answers to the research questions? How was the population identified? Why is the targeted population the best possible populations to answer the research questions? Address other possible populations and why they were eliminated from consideration for this study. What is the setting for the study?

**Sample**

Who are the actual participants in the study? What are the characteristics of the sample (e.g., age, gender, ethnicity, work experience) and other sample attributes relevant to the research question(s)? How and why were they chosen (i.e., inclusion criteria)? Why should they be
willing to participate? Will any participants be excluded from participating (i.e., exclusion criteria)? If so, include the criteria and a justification. For quantitative studies or phases, a power analysis should be conducted to determine sample size. The power analysis procedures should be included and how the sample will be obtained. Was the sample obtained from an existing database? If so, what? How was permission obtained to use an existing database? Be sure to include references throughout this section to justify the type of sample used. If a mixed methods research design will be utilized, separate subheadings for the quantitative and qualitative phases are recommended.

**Instrumentation**

Instrumentation should include the type of instrument(s) that will be used to collect the data. Students are encouraged to use instruments that have been used in previous studies to eliminate the need for pilot studies to determine reliability and validity. Several good sources (e.g., *Burris Mental Measurement Yearbook* and *Tests in Print*) are available for examination. Also, be sure to check Dissertation Abstracts and the PsyLit databases for possible data collection instruments. Any instrument that will be used in the study should be thoroughly documented to demonstrate to the EdD Dissertation Committee how the instrument will collect the data necessary to answer the research questions. Include information concerning permissions obtained to use an existing instrument. Include formal permission(s) and the measure(s) as appendices.

Locating or developing an instrument is one of the key components of a good research study. Unless the instrument chosen can answer the research questions, nothing can be gained from the research. Include information for each instrument on (a) form of the instrument with sample items and scaling/scoring information; (b) reliability and validity from past studies if
utilizing pre-existing scales, questionnaires, surveys, and/or instruments (i.e., citing the original journal article where the scale was constructed and validated initially); and (c) reference to an appendix in which the reader will find the complete instrument and all correspondence and directions, which will be sent to the respondent subjects in the sample.

Describe all instruments you will use (i.e., tests, surveys, interview protocols, and observation schedules/forms). Describe in detail how the instrument is organized. Describe how the instrument was designed for use in educational research, how it was coded, the number of items, and types of scales. If you are using someone else’s instrument, describe how you obtained permission to use it and place the formal permissions in the Appendix. Describe reliability/validity (e.g., how it was determined and how you will determine it). If a mixed methods research design will be utilized, separate subheadings for the quantitative and qualitative phases are recommended.

**Validity**

The extent to which you are obtaining the data you want or the correspondence between the reality you are studying and what your data collection instruments and procedures produce is called validity. What you have decided to study must be carefully defined, and the procedures and instruments you select or develop must match the purpose closely. The extent to which you have this match determines, in part, the validity of your study. For quantitative measures, the types of validity include face, content, predictive, and construct, which has two components: convergent and discriminant. Various procedures and statistical analyses can assist the EdD student with establishing validity. The student should consult with the Methodologist and/or Chair of the EdD Dissertation Committee for assistance with validity.
An item analysis must be presented in Chapter III that contains three elements: A listing of all items in the data collection instrument(s), the literature that supports the inclusion of the item in the data collection instrument, and the research question that each item will answer.

Excerpts from sample Item Analysis Charts are included below as Figures 10 and 11.

<table>
<thead>
<tr>
<th>Item</th>
<th>Research</th>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>1</td>
</tr>
<tr>
<td>2. Marital status</td>
<td>Chase &amp; Bell, 1994</td>
<td>1</td>
</tr>
<tr>
<td>3. Number of children in K-12</td>
<td>Anderson, 1998</td>
<td>1</td>
</tr>
<tr>
<td>4. Age youngest child</td>
<td>Holliman, 1996</td>
<td>1</td>
</tr>
<tr>
<td>5. Highest degree</td>
<td>Grogan, 1996; Stouder, 1998</td>
<td>2</td>
</tr>
<tr>
<td>6. Race/Ethnic</td>
<td>Alston, 1999; Hodgkinson &amp; Montenegro, 1999</td>
<td>1</td>
</tr>
<tr>
<td>7. Extended family in area</td>
<td>Anderson, 1998</td>
<td>1</td>
</tr>
<tr>
<td>8. Number of students in district</td>
<td>Holliman, 1996</td>
<td>3</td>
</tr>
<tr>
<td>9. Metro status</td>
<td>Gupton &amp; Slick; Holliman, 1996</td>
<td>3</td>
</tr>
<tr>
<td>10. Years in present position</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>4</td>
</tr>
<tr>
<td>12. Number of superintendencies</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>4</td>
</tr>
<tr>
<td>13. Supt. Prof. Development Program</td>
<td>Glass, 2000; Grogan, 1996; Grogan, 1996</td>
<td>2</td>
</tr>
<tr>
<td>15. Previous positions</td>
<td>Huang, 1998; Heller, 1999; Glass, 2000</td>
<td>3</td>
</tr>
<tr>
<td>16. Career path</td>
<td>Huang, 1998; Keller, 1999</td>
<td>3</td>
</tr>
</tbody>
</table>

*Figure 10. Example of Quantitative Item Analysis Chart.*
<table>
<thead>
<tr>
<th>Item</th>
<th>Research</th>
<th>Interview Question</th>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Married</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2. Ages of children</td>
<td>Holliman, 1996</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3. Number of children</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5. Succession</td>
<td>Crawford, 1992; Holliman, 1996; Glass, 2000</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>7. Years of experience</td>
<td>Anderson, 1998; Holliman, 1996</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>10. Awareness</td>
<td>Crawford, 1992; Durckel, 1999</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>11. Seek/apply</td>
<td>Stouder, 1998</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>12. Internal promotion</td>
<td>Stouder, 1998</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>13. Relocate</td>
<td>Crawford, 1992; Glass, 2000; Grogan, 1996; Holliman, 1996</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>14. Hardship to relocate</td>
<td>Chase &amp; Bell, 1994</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16. Influence</td>
<td>Gupton &amp; Slick, 1996</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>17. Mentor</td>
<td>Gupton &amp; Slick, 1996; Sherman &amp; Repa, 1994</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>18. Barriers</td>
<td>Crawford, 1992</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>20. Strategies to overcome barriers</td>
<td>Anderson, 1998; Brunner, 1997; Morie &amp; Wilson, 1996</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>22. Accessibility</td>
<td>Crawford, 1992</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>23. Professional organizations</td>
<td>Crawford, 1992; Durckel, 1999</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>24. Balancing responsibilities</td>
<td>Blanche, 1996; Crawford, 1992; Grogan, 1996</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>25. Advice to aspirants</td>
<td>Gupton &amp; Slick, 1996; Pavan, 1999</td>
<td>15</td>
<td>8</td>
</tr>
</tbody>
</table>

Figure 11. Example of Qualitative Item Analysis Chart.

Reliability

The extent to which the collected data are stable over time is called reliability. To ask a student or teacher to fill out a questionnaire or to observe a faculty or school board meeting and get a sample of typical behavior that is not representative of that event or situation can influence
the findings and conclusions. Two general ways to determine reliability are: (1) ask a few respondents to take your instrument twice or observe them at two different times, and (2) ask the same questions in slightly different ways in the same instrument or have two observers look for the same phenomenon at the same time. Statistical analyses can be used to establish reliability, and the Methodologist can provide assistance with those analyses. If the data from the questions or observations vary significantly over time or across similar questions on the same instrument, the data may not be reliable. If this situation occurs, try to clarify the purpose or improve the questions or observations until the data are more stability.

**Published Resources**

Besides tests, many instruments already exist that you might use rather than developing your own. The advantages of these instruments are that they may have been developed by experts in the field; they may be valid and reliable, and they may be readily available for use. The important thing to remember is that such instruments must be directly related to your topic of study or they will not be useful or appropriate, even though they are well developed. After the review of the proposed instrument, consult the resources listed in the bibliography to determine whether there is a published instrument you might use.

**Pilot Study**

If a pilot study will be utilized, outline the procedures to be used and how the results obtained will be used. Clearly outline why the pilot is important and how changes will be made as a result of the pilot. If an expert panel is used as part of the pilot, include the names and qualifications of the panel in an appendix. For the qualitative dissertation, outline the procedures to be used to validate the protocols used for interviews or other forms of data collection. Who are the participants, and how will their recommendations be incorporated into the final study?
Other Sources of Data

Attendance and tardiness records, for example, or enrollments in elective classes may reflect the level of interest students have in classroom work as well as, if not better than, asking them in an interview how much they like that aspect of the curriculum. The number of books checked out of the library per month, the number of students who attend extracurricular clubs, the number of disciplinary cases handled by the vice principal, infraction of rules that are most commonly, or rarely, violated, what lunches are most popular with students, what the average student-teacher ratio is, the size of the school budget for materials, the physical size of the school and classrooms, and other readily available data could have as important a bearing on your study as the data you plan to collect by questionnaire, observation, or interview. Spend some time thinking about data already available to you from places, such as the central office, the state department of education, reports of federally funded projects, Census Bureau, or the local Chamber of Commerce. These places may have helpful information that would allow you to develop a more comprehensive picture of your problem than just the data you may need to collect yourself by observing or administering questionnaires within a school.

Intervention

If an intervention was (or will be) implemented, the EdD student should describe the intervention with sufficient details. If the EdD student is conducting a causal comparative research design involving an intervention, the previously implemented intervention must be described within Chapter III. Who were (or will be) the participants for the program? What were (or will be) the intervention activities, including description and procedure? The following example provides a brief description of an intervention and the procedures for implementing it.
The GAPE (Grammar, Audience, and Punctuation Errors) mini-unit was developed by the course instructor to improve grammar, audience, and punctuation errors within an introduction to teaching course during a 16-week semester. At the beginning of each class meeting, the students were given two sentences as a bellringer. These sentences were a representative sample of typical writing submitted for the introduction to teaching course. The sentences were presented on the Promethean Board and within their daily class handouts. The students were directed to locate and correct the grammar, audience, and/or punctuation errors. If the sentence was correct, they were to write “correct”. After 5 minutes, the instructor reviewed each sentence by asking one of the students to come to the Promethean Board and correct the error. Afterwards, the instructor offered other variations to correct the similar errors (e.g., a run-on sentence can be correct with a period, comma and conjunction, or a semi-colon).

What will be the process evaluation, including reach, dosage, and fidelity? *Reach* is the extent to which the targeted populations received the scheduled intervention dosages. For example, students’ participation in the curriculum activities could be assessed using the teachers’ daily attendance record. *Dosage* is the number of sessions involved with the intervention. For example, 180 lessons will be taught during 55-minute sessions. The instructor could document the lesson implementation using lesson plans. *Fidelity* is the extent to which the implementation is consistent across time. For example, school personnel could monitor the implementation using weekly observation forms. The same materials and staff could be utilized to train all instructors prior to implementation. What will be the process for evaluating the implementation process (i.e., formative evaluation)? For example, staff could meet weekly to review weekly observation forms and discuss any supports needed to maintain reach, dosage, and fidelity of the intervention.
Data Collection

The EdD student should outline the research procedures for collecting the data sequentially. Include any information that would be important to someone who might wish to replicate the study. Give documentation and justification in enough detail that you can substantiate to the EdD Dissertation committee and to outside reviewers. Think through your study carefully. Select or develop your data collection procedures carefully, then have others examine the purpose, procedures, and instruments to see if what your communication is clear to them. Provide citations to support descriptions, explanations, and justifications. In this way, the EdD student can have confidence that his or her study has clarity and alignment with the problem statement, purpose of the study, research question(s), hypotheses, research design, data collection procedures, and data analysis procedures. Length of this section will vary greatly from dissertation to dissertation. The EdD student is obligated to describe precisely and expansively the data collection procedures (e.g., mail survey, personal or telephone interviews, participant observations, and accessing existing databases). If a mixed methods research design will be utilized, separate subheadings for the quantitative and qualitative phases are recommended. This section should include the following items.

- Sequential and detailed procedures for recruitment and any follow-up recruitment, including any incentives/compensations for participation.
- Sequential and detailed procedures for obtaining informed consent.
- Sequential and detailed procedures for administrating the measures (e.g., where, when, duration, how data will be audio/video recorded, anonymity/confidentiality, transcription, and how data will be stored/destroyed).
- Sequential and detailed procedures for debriefing, if applicable.
• Sequential and detailed procedures for any follow-up procedures (e.g., posttest or completion of multiple measures, member checking, or external auditor).

**Data Analysis**

After an introductory sentence, simply restate the research questions from Chapter I. The research questions or hypotheses should be restated in logical, sequential order. The research questions reported in this chapter *must* be the same questions as reported in Chapter I of the EdD dissertation. The EdD student should state the data analysis technique to answer each research question (e.g., statistical test or type of coding, categorizing, and theme analysis) and how the results will be interpreted (e.g., alpha level). The student should provide citations to support descriptions, explanations, and justifications. Convince your reader you are knowledgeable about the data analysis techniques used in the study. Select the data analysis procedure that is compatible with your type of data collected through the stated data collection procedures, research design, and research question(s). If you are going to use a more sophisticated level of data analysis, consider it in the planning stages of your study. Many statistical procedures require a minimum number of responses, and the responses may have to meet certain qualifications. If these procedures are not built into your data collection procedures and instruments, you might not be able to use the statistical procedure you want in analyzing the data later. Check with the Methodologist to assist with data analysis, depending on the constructs, variables, and/or concepts being investigated, specifics of the sample of the study, and research design. If a mixed methods research design will be utilized, separate subheadings for the quantitative and qualitative phases are recommended. This section should include the following items.

• Identify software used for data analyses, if applicable.
• **Qualitative:** Describe how credibility (internal validity) was established. Describe how transferability (external validity) was established. Describe how dependability (reliability) was established. Describe how confirmability (objectivity) was established. Describe intra- and intercoder reliability.

• **Quantitative:** Explain any data cleaning, data transformation, data imputation and/or dummy coding processes. Describe how the model assumptions will be tested. Describe how validity and reliability will be determined for each measure.

• **Mixed Methods:** Describe the procedures for integrating the quantitative and qualitative data (i.e., linking, merging, and/or embedding), including rationales for selected data integration technique, data analysis, and interpretation.

**Summary**

Chapter III should conclude with a brief summary of the methodology to be used in the research study. The summary must be written as if someone was reading only the summary and not the entire chapter. Simply stated, could the reader determine the methodology from the summary?

**Institutional Review Board**

After the dissertation proposal has been defended and approved, the EdD student should submit an application for human subjects research to the CSU Institutional Review Board (IRB) for approval. This requirement applies to all educational research involving human subjects. This step must be followed, or the student will automatically be withdrawn from candidacy. IRB forms are found on the [Columbus State University IRB website](#). All addendum items from the IRB application (e.g., recruitment letters, letters of cooperation, data collection measures, and/or informed consents) should be included in the EdD dissertation as an appendix. The EdD student
should ensure that ethical components of the study are presented under the Data Collection section.

1. Research goals are consistent with principles of working toward improving education.
2. Benefits and risks to participants are clearly identified and communicated to participants through informed consent.
3. Confidentiality of data is adequately ensured.
4. IRB approval is granted before any data collection.
Once the EdD student has obtained CSU IRB Approval and has collected the data, the challenge of interpreting data begins. Summary and interpretation should be aligned with problem statement, purpose of the study, and research questions. The data analysis process is guided by the detailed analysis procedures outlined in Chapter III.

**Summarizing the Data**

The first stage of interpreting the data is to summarize the raw data. Raw data refers to the actual responses of the participants or the actual statements taken from documents and/or transcripts. The EdD student could conduct frequency counts of the survey responses, or summarize coding for interview transcripts. Percentages can make your data more readily understandable and meaningful. The percentages should not be used for inflating and/or making the results “look good”. To read that 61% of the teachers believe they have enough materials to teach biology adequately is more readily understood than to see that 44 out of 72 teachers reported they had enough materials. Converting to percentages gives a common basis for understanding the frequency of the responses.

The EdD student could determine if any of the data needs to be transformed prior to data analysis. If you are using an instrument that is available commercially, scoring procedures will be a part of the user's manual. Follow those procedures precisely. For continuous quantitative variables, conduct descriptive statistics (e.g., mean, median, standard deviation, minimum, and maximum). Another efficient way to summarize data is to record them in tables, graphs, or other visual displays. There are many options for tables and figures. Whatever form of visual display is selected, table or figure should be appropriate, accurate, and answer the research question(s)
and/or hypotheses. The purpose of using such visual displays is to report clearly and simply your findings. This process can be tedious. When this process is complete, you have a summary of the raw data. In addition, for survey scales, you should report the Cronbach alpha coefficients and validity coefficients (i.e., discriminant and convergent at minimum) for quantitative research studies or quantitative components of mixed-methods research studies.

Consistency is a key concept to use in whatever technique you decide upon to analyze your data. If you decide to summarize a response from an interview in one way, then you must be sure to do it in that way for all other responses regarding that item. Summarizing dissimilar responses as the same can be confusing for the reader. For example, if you examine attendance reports for data, you must not take total absences of any kind from one school, excused absences only from another school, excused absences for medical reasons from another, and then summarize them simply as days absent from school throughout the district. They are dissimilar data and should be handled as separate cases. Consistency in handling data assures that you can have confidence that the data you report are comparable and have been treated in equal and appropriate ways. Consistency impacts applicability (external validity or transferability), consistency (reliability or dependability), neutrality (objectivity), and credibility (internal validity or truth value).

**Clustering of Data**

A next stage in interpreting your data might be to cluster findings of several items on a questionnaire or interview in order to draw a higher-level conclusion than you might otherwise be able to if you only considered responses to a single item or a single statistical procedure. This level of interpretation might include dissimilar data in relation to how they were collected or analyzed in order to cluster them around a broad concept or idea directly related to the purpose
of your study. This level of interpretation still should make explicit, however, what data were used in the summary, generalization, or conclusion. Data might be used from questionnaires, interviews, and content analysis of documents to reach a higher order of conclusion from your data. For example, student and teacher responses from a questionnaire may include that over 75% of each group report they teach or learn adequately what they need to in order to be successful readers. Scores on the minimum competency exams for the district might indicate only a three percent failure rate in the district, but 95% of those students who failed the exams for the first time pass them on the second try. An analysis of the school district's budget may indicate a higher percentage of expenditures for reading materials than is spent on any curriculum area. Interviews of all principals in the district may indicate that only one out of ten believes that the district should place greater emphasis or priority on reading skills. All of these individual findings from dissimilar data begin to suggest the conclusion that the district is doing a good job of reading instruction throughout the grades. Pieces of data upon which the conclusion is based should be conceptually related and that you report explicitly all the data you used to reach the conclusion. The reader or user of your study then has a perspective about the conclusion that is essential.

In the example presented above, there are no data included from parents or the school board. These groups ought to be consulted before the conclusion is accepted as fact and applicable to the entire district. The EdD student might find out why one principal and about one-fourth of the teachers and students were exceptions to the conclusions. Are they all at the same school? Are all teachers who deviated from the majority special education teachers or teachers of gifted students? Are the students in the one-fourth of the sample who responded negatively those who received the lower scores on standardized achievement tests and who failed
the minimum competency tests? Each of these questions is a legitimate one that puts the conclusion into perspective because the findings upon which the conclusion was based were carefully reported. The questions also begin to suggest follow-up studies that might be conducted.

**Cautions about Interpreting the Data**

There are two general cautions in interpreting your data: (1) do not assume that your data mean more than they really do, and (2) put the data into an appropriate perspective. In interpreting data, be sure to reflect as precisely as possible the actual research questions asked or comments made by your respondents. When 80% of the teachers polled indicate a strong disagreement with what is taught in the science curriculum, it is not the same idea as suggesting a radical curriculum reform. The two ideas may be logically related, but the respondents did not say the latter; they only expressed disagreement with what is taught. What your respondents said or what was contained in the documents analyzed must be reported carefully. You may draw implications from your data, but even these implications should not go beyond your data. A more cautious and directly related implication based upon the finding of strong disagreement with what is taught in science from 80% of the teachers might suggest an intensive study of what is actually being taught by the teachers, an analysis of what curriculum guides and achievement tests expect teachers to teach, or a determination of the necessary qualifications and skills teachers ought to have to teach science successfully. Depending upon such subsequent studies, radical curriculum reform in science may or may not be a reasonable recommendation.

Your study must be placed in an appropriate perspective to be understood fully. Some aspects of an appropriate perspective would include the size and location of your school, the types of students and communities served by it, the ages or grade levels included within it, the
number and types of respondents and documents used as sources of data, and a description of how you planned and conducted your study. These details should be a part of the perspective given for any study of a school. They help the reader or listener more fully understand the data that are reported.

There will be other aspects of your school to be reported as a part of the necessary perspective. Typically, these aspects will be descriptive or statistical comments about your district or school which have a bearing upon the data in your study, but which are not directly a part of it. To study the math achievement of sixth-grade students and report data regarding achievement test score gains per year, minimum competency test results and attitudes toward math tell an important part of the story; however, the perspective needed also would include that students come from a high socioeconomic class, that students come from a relatively small, intermediate school containing about 400 students in Grades 6, 7, and 8, and that only 10% of the teachers have specialized preparation in mathematics education. These facts begin to place your data within a needed perspective so that they can be understood better.

Any interpretation you give to data must be based upon the purpose of your study, research design, research question(s), hypotheses, and the actual collected data. Organizing and interpreting data in ways that are honest and useful to you and other potential users can be a challenge, but it also is one of the most exciting phases of your study. Interpreting the data is the payoff for all of your hard work. After the data analysis and interpretation are completed, you are ready to begin writing Chapter IV. This chapter should be arranged in the following order. If a mixed methods research design will be utilized, separate subheadings for the quantitative and qualitative phases are recommended.
Introduction

The reader must be reminded of the problem and purpose of the study and given a short summary (one or two paragraphs) of the research methodology as a means of making the transition to the research findings. Simply presenting research findings in isolation may confuse readers. Therefore, briefly review the overall focus of the study and also include the major elements to be presented in this chapter.

Participants

The EdD student should present information about the respondents in the research study. Regardless of quantitative or qualitative design, the demographic and descriptive information concerning respondents should be presented in Chapter IV. The EdD student should state the number of actual participants and the response rate and discuss any participant attrition. In addition, include the duration of recruitment and data collection.

Findings

The EdD student should restate the research questions and hypotheses if applicable. The research questions and hypotheses must be restated using the same wording from Chapters I and III. By restating, the EdD student focuses on the actual research questions driving the dissertation. The EdD student may find that dividing the chapter into sections that answer each of the research questions is a beneficial means of reporting the data. Regardless, the student is encouraged to work closely with the Chair and the Methodologist to make sure that data are reported in an appropriate format.
This section is a factual reporting of the data collected utilizing research instrumentation explained in Chapter III. These data may be presented in graphic and/or tabular form with a thorough explanation. The actual organization of the section will depend on the nature of the study (quantitative or qualitative), the format of the data collected, and the preference of the EdD student. Each research question must be addressed in the findings, including both statistically significant or not statistically significant results and effect sizes for each statistical procedure. A table must be mentioned in the narrative before it appears in the EdD dissertation.

All charts, tables, graphs, and figures must be thoroughly and completely explained in the text. It cannot be assumed that the reader will be able to extrapolate complete information from tables and charts. It is the writer’s responsibility to articulate the salient points from the tables and graphs succinctly and explain them in the text of the chapter logically. The written interpretation of the data should refer to the appropriate exposition from Chapter III.

Use two or three paragraphs to provide an overview of how the data will be presented. What is covered here is highly dependent upon the research design of the study. If a survey instrument was part of the research that contained demographic data used to determine independent variables, then these data should be presented first and described and discussed fully. The way in which the research questions and hypotheses will be reviewed in the order they were presented in Chapter III. Each hypothesis and/or research question reported in Chapter III must be addressed individually in Chapter IV, including the overarching research question. If there is a difference in the presentation of data for different research questions and hypotheses, provide a brief statement of the different treatment. For example, some research questions may have only descriptive data. Additional research questions may each have one or more hypotheses with accompanying data analysis and findings from each hypothesis. The EdD
student should address each research question directly, stating the extent to which that research question was answered.

Based on this material, you will be able to suggest explanations for your findings, which in turn should enable you to produce a reasoned discussion of the research topic in the context of the published works as outlined in your literature review. A complete but succinct description of the results should be presented in the form of text supported by tables, diagrams, graphs, and maps. The interpretation of results enables you to identify any patterns or trends in your data: patterns and trends, which have been authenticated through statistical analysis in most cases.

The following items should be addressed in this section.

- **Quantitative:** Report the results from testing assumptions. Report descriptive statistics to summarize the data. Report and explain descriptive and inferential statistics based on the data analysis technique and statistical model. Interpret the findings and either *fail to reject* or *reject* each null hypothesis.

- **Qualitative:** Report and interpret the findings. Provide evidence of coding, categorizing, and themes, including quotes from transcripts and/or documents. Discuss any discrepant cases.

- **Mixed Methods:** Report and explain the results obtained by integrating quantitative and quantitative data strands (through linking, merging, and/or embedding).

**Summary**

Chapter IV should conclude with a short summary of the major findings of the study, including both statistically significant and not statistically significant.
Chapter V is a synopsis of the total study with specific considerations for the future, including implications and suggestions for further study. The chapter includes a brief summary of the entire research study, pertinent conclusions, and implications for the field of curriculum and instruction, educational leadership, and/or higher education administration. Chapter V concludes with recommendations from the EdD student. No new information may be presented in Chapter V.

Many EdD students have difficulty with Chapter V because of the extraordinary liberties they take with findings. Of course, Chapter V should be the culmination of the study and should be largely the prerogative of the EdD student as to how it is reported, but there are extensive rules, which must be followed in the discussion of the research findings and in the conclusions. The EdD student should present only information in Chapter V that can be justified through an overt analysis of Chapters I, II, III, and IV. Typically, Chapter V is 15 to 20 pages in length. This chapter should be arranged in the following order:

1. Summary of the Study
2. Analysis of the Findings
3. Limitations of the Study
4. Recommendations for Future Research
5. Implications of the Study
6. Dissemination of the Findings (if applicable)
7. Conclusion

Summary of the Study

A brief summary of the research project begins the final chapter. This summary should be written so that the reader could read this section and have a good picture of the total study.
This section should restate the problem, methodology, and gap in literature that the current study attempted to fill. In addition, this section should summarize the key findings from Chapter IV.

**Analysis of the Findings**

The EdD student must discuss the findings in relation to the empirical literature and theoretical and/or conceptual framework. The major findings should be discussed in relation to comparable findings reported in the review of literature (i.e., Chapter II). This section contains no new information, only a discussion to identify any similarities, gaps, and contradictions between the findings presented in Chapter IV and the literature contained in Chapter II. The purpose of this section is to analyze how this study contributes to the literature in the field of curriculum and instruction, educational leadership, and/or higher education administration. Any literature presented for comparison or contrast in Chapter V must be an outgrowth of literature presented in Chapter II. Again, the item analysis charts presented in Chapter III and the concept charts from Chapter II present ideal mechanisms for developing this section of the dissertation. For quantitative components, you should provide reasons on why the results were both statistically significant or not statistically significant. The reasons could be from the research design, sampling procedure, data analysis, or any other confounding factors or variables (e.g., logistical, location, setting) that might have influenced the results.

Conclusions are drawn from the research findings specifically discussed in Chapter IV. No conclusions can be articulated that are not supported by the data analysis presented in Chapter IV. Although the conclusions must reflect the findings of the study, they may be extended deductively beyond the specific study if justified by the research methodology. Conclusions are more than just a restatement of the findings presented in Chapter IV. Conclusions focus on the broad conceptualizations that drive the study. After completing the
research, the EdD student should be able to draw conclusions from his/her experience from the research coupled with the findings in Chapter IV. Findings are viewed as the micro presentation of information, while conclusions are the macro presentation of information.

Conclusions should be based on the research questions in Chapter I. They should be presented in the same order as the research questions. This last chapter of the EdD dissertation should bring the research full circle. Be very clear about stating conclusions and the discussion of the conclusions. This section should contain anything and everything that the EdD student wants to say about the research that has been conducted. This section is the place to tell the reader what the EdD student thinks about the research and how can the research findings apply to his or her current workplace or other similar conditions. Therefore, use references in this chapter to support what is being said! Feel free to disagree with what was found in the literature; just be sure to explain what is being thought. As the researcher, you may draw upon life experiences to support your thoughts, views, and ideas. Analyze, synthesize, and evaluate what was found in the research with what you think. All statements should be concise and should be written to support the conclusions that you have made. One way to present the conclusions is to use one paragraph for each conclusion. When writing the dissertation, you should be aware of the worth and relevance of your work in relation to the current state-of-the-art, which is another reason for a rigorous literature review.

**Limitations of the Study**

The potential limitations/delimitations were discussed in Chapter I. For this section, the EdD student should discuss limitations related to the study’s sampling design, data collection, data analysis, discussion on bias-participant, researcher, setting (e.g., time, location, environmental conditions, mode of survey administration), or statistical (e.g., human error in
coding, biased estimates occurring due to the research design, sampling design, data collection, and data analysis). Was there a low response rate or small sample? Did the participants include heterogeneous groups? There are four major areas within limitations: internal validity (e.g., possible alternatives to explain findings), external validity (e.g., generalizability of findings), measurement (e.g., reliability and validity of instrumentation), and statistical analysis (e.g., issues with power, effect size, or selected statistical test).

**Recommendations for Future Research**

Based upon the findings and conclusions, the EdD student may wish to make recommendations that could be either generic in nature or very specific. The list of recommendations could extend from “find another instrument” or “find another population” to “another researcher should conduct this study using a different approach.” Typically, the recommendations are of two types: (1) recommendations for replicating the results of the study, and/or (2) recommendations for future research. Recommendations should be numerically listed and explained for the reader. Research often exposes further problems and introduces more questions. As a student, time limited the scope of your study; unlikely, your work did not solve all problems associated with the area of study. Therefore, you will be expected to make suggestions about how your work can be improved and, based on your findings, whether there are areas that deserve further investigation. Often, scientific investigations produce more questions than answers. Does your work suggest any interesting further avenues? Are there ways in which your work could be improved by future researchers?

**Implications of the Study**

This section is crucial to Chapter V because the EdD student must speculate on the implications of the study for the field of curriculum and instruction, educational leadership,
and/or higher education administration. One of the primary purposes of the EdD dissertation is to make an original contribution to the literature of the field and/or to improve educational practice. In this section, the EdD student identifies what information from the study can be used by other researchers or by practitioners in the field. Without implications for the field, there is little utility for the research. What are the implications of this research for the educational leaders and the organizations they serve? What implications can be extrapolated for the larger population beyond the parameters of this study? What are the long-term and short-term implications of the findings? Who should benefit from the study? The EdD student should draw implications from those implications listed in Chapter I under “Significance of the Study”.

Implications are practical suggestions for addressing the issues that have been raised during the study. These implications should be suggestions of what should be done. Be sure to add, following what should be done, and how it can be done. Making suggestions as to what should be completed regarding an issue is an easy task. The EdD student should go one step further and outline how those suggestions can be implemented. There may not be more than two or three implications for practice and/or policy. The quantity is not as important as the quality of thought behind the suggestions. There should be an implication for every person listed in Chapter I as one who would benefit from the study. This connection provides a logical tie throughout the dissertation.

**Dissemination of the Findings**

The program and the faculty of the College expect the EdD student to share the pertinent findings of the dissertation in professional meetings, whether research-oriented or practitioner-oriented meetings. The faculty also expects the student to contribute the information from the EdD dissertation to the education profession. Consequently, the EdD student should identify
two or more groups who would be interested in the findings of the study and outline a brief plan for disseminating those findings. Refer to the Chair of the EdD Dissertation Committee to determine if this section should be included in the dissertation.

**Conclusion**

The EdD student should conclude the EdD dissertation with a few brief, personal reflection on the research that was conducted. This section may help tie the passion for the topic of the research presented in Chapter I to the findings and conclusions of the study presented in Chapter V. What is the “take away” from your EdD dissertation?
The appendices contain material not required directly in the text, but of general interest to the EdD student and potential readers. Appendices are materials that document important components of the dissertation research process that would be too lengthy, awkward, or distracting to include within the text but should be included as appendices in the final document. Appendices should be set aside in the EdD dissertation as "stand–alone" sections that may be moved at the committee's request. Material that should be in the EdD dissertation, but which would break up the logical flow for the reader because of their length, should be included as an appendix.

When referring to material contained in an appendix, the EdD student should direct the reader to where it can be found. For example,"......as expressed in the Council's inner area policies (see Appendix C)." Examples of materials you may want to include as appendices are permission forms, examples of record sheets, copies of blank questionnaires or surveys, mathematical workings, informed consent forms, and recruitment letters or emails.