

Dissertation Checklist

Use this checklist to ensure that all aspects of the Proposal and, later, the dissertation are appropriately addressed.

Dissertation Template

The University of Arizona Global Campus Dissertation Template must be used for all drafts of the proposal and dissertation, including (in this order):

- Title Page
- Copyright Notice
- Abstract
- Acknowledgements (optional)
- Table of Contents
- List of Tables and Figures
- List of Appendices
- Chapter I: Introduction
- Chapter II: Review of the Literature
- Chapter III: Method
- Chapter IV: Results
- Chapter V: Discussion
- References
- Appendices
- Bibliographical Statement (optional)

Each chapter must begin on a new page, headed with the word “Chapter” followed by the chapter number and title of the chapter.

General Writing Guidelines

- **APA Formatting:**
 - The Proposal and Dissertation drafts are in full compliance with APA formatting, using the current edition of the *Publication Manual of the American Psychological Association 7e*.
 - A person acting as the APA style editor has reviewed and verified review of the Final Project Report.
- **Form and Appearance:**
 - Proposal and Dissertation follow a standard form and have a professional, scholarly appearance.
 - Correct grammar, punctuation, and spelling are evident, according to the current version of the *Publication Manual of the American Psychological Association*.
 - Citations are included for direct quotations, paraphrasing, facts and references to research studies.
 - Secondary sources and quotations are used sparingly, or, preferably, not at all.
 - Sources for all in-text citations are included in the Reference List.
- **Tense:**
 - The Proposal is written in future tense.

The Dissertation is written in past tense.

• **Scholarly Language:**

- Proposal and Dissertation are written clearly in scholarly language.
- Writing is clear and precise and avoids jargon and redundancy.
- Statements are specific, and topic sentences are established for all paragraphs.
- Flow of language is smooth and clear.
- Ideas transition smoothly.

• **Organization:**

- Proposal and Dissertation are organized logically and comprehensively.
- Chapters add up to an integrated whole.
- Subheadings identify the logic and movement of the document.
- Transitions between chapters are smooth and coherent.

• **Tables and Figures:**

- All Tables and Figures are formatted using the current edition of the *Publication Manual of the American Psychological Association* (see chapter 5).
- Content (including illustrate(s)) is informative, relevant, and concise.
- Tables and figures are placed in context with narrative text.
- All long tables included in an Appendix.
- Titles are unique, brief, clear, and explanatory.
- Figure numbers and titles are placed **above the actual figures**.
- Table numbers and titles are placed **above the tables**.
- Copyright permission for any non-original content is indicated (if not in the public domain).

Title Page

The title page contains the following information in the specified order:

- Title of the Dissertation: centered, all caps, and single-spaced
- Name of the student (no honorifics)
- Date
- Name of the Dissertation Chair, including terminal degree
- Name of Committee member, including terminal degrees
- Required Text as indicated in the [Dissertation Title Page Template and Example](#)

Abstract

- Consists of one double-spaced page (350 words) or less
- Includes a concise description of the study, a brief statement of the problem, statement of purpose or importance of the project, and a summary of methods and procedures
- Includes a summary of findings and implications
- Follow guidelines for writing an abstract in section 3.3 of the 7th edition of the *Publication Manual of the American Psychological Association*

Chapter I: introduction

Introduces the reader to the nature of the dissertation by moving the focus of attention from a broad aspect to a more specific heading. This chapter should be written in present tense for the proposal, in past tense for the dissertation.

Suggested sections include the following [Other formats are acceptable if all the content described is included]:

[No Initial Heading]

- Introductory paragraphs to identify and describe the general topic area.

General Statement [or Background of the Project]

- Describes a practical problem, and the need for it to be addressed.
- Supports the existence and impact of the practical problem with documentation.

Statement of Problem

- Identifies a general research problem that will address the practical problem. What do you want to know that you don't know (that nobody knows) that will help to solve the practical problem?
- Focuses in on a specific research problem that the study proposes to address.
- Clearly and logically demonstrates how the focus of the study is an important problem, worthy of study.
- Impact of the research problem is fully documented and supported.
- Discusses how the research study represents a unique approach to the research problem, adds to the research literature, and contributes to practice in the field.

Purpose of the Study

- Provides a specific and accurate synopsis of the overall purpose of the study
- Connects the **Purpose of the Study** as addressing the specific research problem.
- Includes a single-sentence Purpose Statement that succinctly describes the focus, project approach, population and geographic location of the study.
- Briefly defines and delimits the specific area of the research.
- Includes a single-sentence Purpose Statement that succinctly describes the focus, methodology, population, and geographical location of the study.

Ex: The purpose of this phenomenological study is to understand the experience of Generation X women in the Los Angeles area who desire to obtain their first executive position in the financial services industry.

- Briefly defines and delimits the specific area of the research.
- Foreshadows the hypotheses to be tested (if quantitative) or the questions to be raised as well as the importance of the study.
- Clearly identifies and defines the central concepts or ideas of the study.
- Identifies the unit of analysis in the study.
- Justifies the general method of inquiry used in the study: qualitative, quantitative, or mixed method.
- Presents the over-arching project question(s) or statement of project intent.

For a quantitative study:

- Specifies at least two variables and a conjectured relationship between them to describe what will be studied.

For a qualitative study:

- Identifies the phenomenon, situation, or factors of interest.
- Indicates and justifies which qualitative methodology will be used.

For a mixed methods study:

- Identifies the specific type of mixed method design--explanatory, exploratory, or triangulation.
- Reflects whether the qualitative and quantitative phases of the study are sequential or simultaneous.

Importance of the Study

- Answers the following in a logical, explicit manner:
 - What is the importance of this research?
 - What will it contribute to theory and practice in the student's field of specialization?
 - What are the potential implications of the research?

Theoretical (or Conceptual) Framework

- Places the study within a specific theoretical area in the field under investigation.
- Situates the study among other research studies within the theoretical area.
- Briefly summarizes enough relevant research literature (historical, seminal, and current) to situate and justify the study based on its contribution to the existing body of research, referencing the more detailed discussions in Chapter II.
- Articulates the theoretical base (quantitative only) or the conceptual framework (qualitative only) to show connection to a certain body of literature. (Mixed method--addresses both theoretical and conceptual framework.)

Research Questions (and Hypotheses)

- Clearly presents specific research questions and sub-questions to be addressed, referencing the more detailed discussions in Chapter III.
- Includes research hypotheses for each research question and sub-question (quantitative only).
- Includes research questions that are identified for the qualitative and quantitative phases (mixed method only).
- Questions and hypotheses are elaborated on in a discussion format, not simply listed.
- Connects the research questions to the **Statement of Purpose**, showing how these questions will address the goals of the study.

Overview of Research Design

- Briefly describes the general methodology and design, including data collection method, population and sample, instrumentation, data collection, and analysis, with references to more detailed discussions in Chapter III.
- Shows how the particular research design is the most appropriate to address the goals of the study.

Definition of Terms

- Defines important terms used in the study, especially those that may otherwise have multiple meanings.
- Uses citations to support the origin of definitions.
- Defines important technical terms that may be unknown to a reader.
- Operationalizes key variables or constructs.

Assumptions, Limitations, and Delimitations

- Describes the scope and bounds of the study (delimitations are boundaries the researcher has set)
- Addresses major limiting factors in the project that could possibly affect the results. (If limitations are considerable, explains why the study is being conducted.)
- Articulates assumptions about facts that are not actually verified.
- Discusses steps that will be taken to ensure assumptions are met and to mitigate limitations, if possible.
- Addresses potential weaknesses of the study.
- Discusses generalizability of the study findings.

Summary

- Summarizes key points of the study.
- Gives an overview of the content of the remaining chapters in the study, bridging to Chapter II.
- Meets the recommended minimum length of 20 to 30 pages for Chapter I.

Chapter II: Review of the Literature

Scholarship entails comprehensive understanding of at least one academic community's historical and current treatment of the pertinent topic. To argue the legitimacy of the current study, a thorough understanding of what that study will add to the most current literature on the topic is necessary.

Literature will be critically analyzed, synthesized, and integrated to produce a story that brings the reader along to understand where the study fits into the current debates and academic edges concerning the topic. Existing and historically seminal literature will provide a contextual framework within which the research design is situated. Additionally, a part of the literature review will provide an academic foundation for the methods and research design chosen. This chapter should be written in past tense.

[Introduction] No Heading Needed

- Begins with the purpose of the chapter, how it fits in the dissertation, and the organization of the chapter.
- Frames the review by restating the topic and the research question(s).

Search Strategy

- Describes the strategy used to collect relevant literature.
 - Indicates which search engines were used.
 - Lists which search engines were used.
- Indicates the strategy for identifying historically seminal (classic) studies and theorists' writings.
- Justifies most appropriate time interval for current sources (last two to three years? Last five years?).
- If applicable, explains the lack of currency of the most recent publications.
- Reviews strategy for focusing on empirical research that most closely resembles the current study.

[Review of Related Research and Literature]

The rest of the literature review should include **logical headings of the student's choice** that aid the reader in understanding the content and organization of the chapter. *The actual headings will differ for each student's work.*

- Review is an integrated, critical analysis, and synthesis of the relevant research and other scholarly literature published on the topic.
 - Includes the most recent scholarship and important historical theories and research to situate the topic.
 - Synthesizes prior research to illustrate what is currently known about the research problem.
 - Compares different theories and research results.
 - Evaluates previous research and related theories.
 - Integrates various studies and theories to describe the historical and current state of knowledge on the topic.
 - Addresses how the proposed research fits in the context of research to date.
- Draws primarily from published journal articles in peer-reviewed journals or sound academic books containing primary material; provides justification for using other sources.
- Has a specific organization for the review. For example, organizes the review around major ideas or themes or organizes the review historically.
- The literature review needs to be *comprehensive*, covering the most important theories or research findings upon which the research problem (and hypotheses) was based.
 - Relates the study to previous research.
 - Identifies how the study will extend current knowledge.
 - Defines the most important aspects of the theory that will be examined or tested (for quantitative studies).
 - Substantiates the conceptual framework for the study (for qualitative studies).
- Clearly relates the review of the related research and literature to the **Statement of Problem** as expressed in the:
 - research questions
 - hypotheses (quantitative)
 - population
 - context/setting
- Includes a discussion of differing and common methodologies previously used to study the research problem, including their strengths and limitations.
- Reviews literature related to the research method and research design, including major and foundational sources in that design and its application to the research problem.
- Includes a literature-based description of the research variables (quantitative studies) or central phenomenon, situation, or factors of interest (qualitative studies).
- Includes literature pertaining to the population and context or setting.

Summary

- Summarizes key point of the relationship between the study's research question and the literature.
- Summarizes the study's contribution to the literature.
- Bridges to Chapter III by summarizing literature-based arguments for choosing a particular methodology.
- Meets the recommended length of at least 40 to 60 pages for Chapter II.

Chapter III: Method

The method chapter discusses the procedures to be followed in conducting the study (in the final draft, the methods that were followed) and the overall research design. The content and format of Chapter III will vary depending on whether the study is a qualitative, quantitative, or mixed methods study. This chapter should be written in future tense for the proposal, in past tense for the dissertation.

[Introduction] No Heading Needed

- Begins with the purpose of the chapter, how it fits in the dissertation, and the organization of the chapter.
- Describes the method of inquiry used (e.g. quantitative, qualitative, mixed method, meta-analysis, program evaluation, etc.)
- Describes the specific research methodology chosen and how it derives logically from the **Statement of Problem** and the research questions.

Qualitative

Methodology Selected

- Describes which qualitative methodology will be used.
 - Justifies choice of methodology using major and foundational sources.
 - Explains why other possible choices would be less effective.
- Describes specific research questions and sub-questions (where appropriate) that are:
 - Clear and succinct
 - Congruent with the **Statement of Problem**
 - Answerable
 - Few in number
 - Clearly stated
 - Open-ended (not yes/no questions)
- Describes the role of the researcher in the data collection procedure.
 - Addresses the potential impact and minimization of researcher bias through methodological approaches.

Study Participants

- Describes and justifies the context (including site) for the study.
- Clearly defines both the general study population and the specific population.
 - Demonstrates (and documents) the ability to access the population.
 - Describes and justifies the sampling approach.
 - Describes how the characteristics of the sample population align with the general population.
 - Discusses how the sample selection impacts the generalizability of the study.
 - Identifies strategies for recruiting participants.
 - Specifies appropriate criteria for selecting participants.
- Addresses the relationship between the researcher and the participants.
- Justifies the number of participants.

Data Collection

- Describes and justifies the data collection method(s) (e.g., interview, focus group, observation).
 - Addresses what types of data will be collected and the unit(s) of analysis.
 - Includes detailed protocol(s) in appendix for data collection (e.g., interview protocol/script, focus group protocol/script, etc.).
 - Justifies contents of data collection protocols by connection to the research questions posed in relation to the qualitative paradigm chosen.
- Clearly describes the process by which the data were generated, gathered, and recorded.
- Clearly describes the systems used for keeping track of data and emerging understandings (research logs, reflective journals, and cataloging systems).

Procedures Followed

- States the sequence of steps followed in conducting the research from development of the research instrument(s) to data analysis.
- Details all steps in a way that another researcher could follow the steps to reproduce the study.
- Explains the relation of the pilot study to the full study, if applicable.

Trustworthiness

- Addresses credibility, transferability, dependability, and confirmability.
- Shows evidence of quality by discussing how procedures will be/were followed to assure the accuracy of the data and lessen the impact of researcher bias (e.g., trustworthiness, member checks, triangulation, etc.).

Ethical Concerns

- Provides adequate measures for ethical protection of participants.
- Includes detailed information about the informed consent process and how informed consent will be obtained.
- Includes Informed Consent Letter in Appendix.
- Includes detailed information about how confidentiality is addressed.

Data Analysis

- Articulates how and when the data will be or were analyzed.
 - Aligns the detailed data analysis plan with the specific research design to generate answers to the research questions.
 - Describes procedures for dealing with discrepant cases.
 - If a software program was used to aid analysis, clearly describes how it was used.
 - Gives details about the coding procedure and how themes or categories were developed.

Quantitative**Methodology Selected**

- Includes a description of the research design and approach.
- Provides justification for using the research design and approach.
- Demonstrates that the research design and approach derive logically from the problem or issue statement.
- Supports the research design and its application with major and foundational sources.

Research Questions/Hypotheses

- Describes specific research questions and hypotheses (where appropriate) that:
 - Are clear and succinct
 - Are congruent with the **Statement of Problem**
 - Are answerable/testable
 - Correspond to the number of variables of interest
 - Have hypotheses that correspond to research questions
 - Are clearly stated

Population and Sample

- Identifies and describes the source of the specific population and the population's characteristics.
- Identifies that permission has been obtained to access the population, if relevant.
- Describes the sampling method, its appropriateness, and the sampling frame.
- Identifies the sample size as sufficient in terms of statistical power to support the analyses.
- Identifies the criteria for selecting participants.
- Describes the sample characteristics.

Ethical Concerns

- Identifies procedures for protection and ethical treatment of human participants.
- Describes the informed consent process in detail, including how human participants will provide their informed consent, where applicable.
- Includes Informed Consent Letter in Appendix.
- Describes procedures to protect confidentiality and anonymity in data collection, analysis, reporting, and storage.
- Where applicable, describes in detail any treatment or intervention to which human participants will be exposed.
 - Identifies concealment or deception as part of the treatment, if used.
 - Identifies the process for debriefing human participants following use of concealment or deception.
 - Identifies if a control group will be used, if the group will receive a standard intervention, and the nature of that intervention.

Instrumentation

List and describe the survey, research, or testing instruments and data collection forms (to be) used in gathering data for the study. The reason for the use of these instruments should also be given. Defend the choice of instruments and address reliability, validity, and utility of the instruments.

- Describes in detail all instrumentation or data collection tools, including:
 - Instrument name, if using an existing instrument
 - Specific type of instrument
 - Instrument's measures in terms of constructs, concepts, or variables
 - Scoring of scales, subscales, typologies and their interpretation
 - Whether a new instrument is developed or an existing instrument is modified and describes its use.
 - Published reliability and validity statistics for existing instruments OR a detailed plan for statistically assessing the reliability and validity of new or modified instrument(s) or existing instruments without established reliability or validity.

- Includes a copy of any instruments used in an appendix.
- Includes a detailed description of data that comprises each variable in the study.
- Includes operational definitions of variables.
 - Provides a clear explanation of how the value of each variable will be derived from the instrument.
 - Identifies the level of measurement (NOIR) for each variable.
- Either describes established (published) reliability and validity statistics or a clear plan to statistically validate the instrument (for modified or created instruments).

Data Collection

- Describes any pilot study results, if applicable.
- States the sequence of steps followed in conducting the research from development of the research instrument(s) to data analysis.
 - Details all steps such that another researcher could follow the steps to reproduce the study.

Data Analysis

- Addresses how the data will be/was analyzed. What statistical methods were used?
- Includes a detailed analysis plan that explains the descriptive and/or inferential analyses proposed or used.
 - Descriptive statistical procedures
 - Whether the data are normally distributed or the distribution is skewed
 - Parametric and/or nonparametric statistical procedures
 - Statistical power

Validity

- Addresses internal and external validity threats and how they will be or were addressed.

Mixed Method

Methodology Selected

- Includes a description of the specific mixed method research design and approach.
 - Research questions reflect the two phases, qualitative and quantitative, and the ordering of the two phases consistent with the specific mixed method design (explanatory, exploratory, or triangulation); hypotheses correspond to quantitative research questions, where appropriate.
- Provides justification for using the specific research design and approach.
- Shows that the research design and approach derive logically from the problem or issue statement.
- Supports the research design and its application with major and foundational sources.

Research Questions/Hypotheses

- Describes specific research questions and hypotheses (where appropriate) that:
 - are clear and succinct
 - are congruent with the **Statement of Problem**
 - are answerable/testable
 - correspond to the number of variables of interest
 - correspond to research questions (if they are hypotheses)

- are clearly stated
- are open-ended (not yes/no questions)

Population and Sample

- Identifies and describes the source of the specific population and the population's characteristics for both phases.
- Identifies that permission has been obtained to access the population, if relevant.
- Describes for both phases the sampling method, its appropriateness, and the sampling frame.
- Identifies the sample size as sufficient in terms of statistical power to support the quantitative analyses.
- Identifies the sample size as sufficient in terms of data saturation for the qualitative phase.
- Identifies the criteria for selecting participants for both phases.
- Describes the sample characteristics for both phases.

Ethical Concerns

- Identifies procedures for protection and ethical treatment of human participants.
- Describes the informed consent process in detail, including how human participants will provide their informed consent, where applicable.
- Includes Informed Consent Letter in Appendix.
- Describes procedures to protect confidentiality and anonymity in data collection, analysis, reporting, and storage of data.
- Describes in detail, where applicable, any treatment or intervention to which human participants will be exposed.
 - If concealment or deception will be used, identifies that as part of the treatment.
 - Identifies the process for debriefing human participants following use of concealment or deception.
 - Identifies if a control group will be used, if the group will receive a standard intervention, and the nature of that intervention.

Instrumentation

List and describe the survey, research, or testing instruments, interview or observational protocols, and data collection forms used in gathering data for the study. The reason for the use of these instruments should also be given. Defend the choice of instruments, and address reliability, validity, and utility of the instruments.

Quantitative phase:

- Describes in detail all instrumentation or data collection tools, including:
 - Instrument name, if using an existing instrument.
 - Specific type of instrument.
 - Instrument's measures in terms of constructs, concepts, or variables.
 - Scoring of scales, subscales, typologies, and their interpretation.
 - Whether a new instrument is developed or an existing instrument is modified and describes its use.
 - Published reliability and validity statistics for existing instruments OR a detailed plan for statistically assessing the reliability and validity of new or modified instrument(s) or existing instruments without established reliability or validity.
- Includes a copy of any instruments used in an appendix.

Qualitative phase:

- Describes and justifies data collection method(s) (e.g., interview, focus group, and observation).
- Justifies choices about which data to collect, including:
 - Addresses what types of data will be collected and the unit(s) of analysis.
 - Includes detailed protocol(s) in appendix for data collection (e.g., interview protocol/script, focus group protocol/script, etc.).
 - Justifies contents of data collection protocols by connection to the research questions posed in relation to the qualitative paradigm chosen.

Data Collection

- Describes any pilot study results, if applicable.
- States the sequence of steps followed in conducting the research, from development of the research instrument(s) to data analysis.
 - Details all steps such that another researcher could follow the steps to reproduce the study.
- Describes the role of the researcher in the qualitative data collection procedure.
 - Addresses through methodological approaches the potential impact and minimization of researcher bias.

Data Analysis

- Addresses how the data were analyzed. What statistical methods were used?
- Includes an explanation of descriptive and/or inferential analyses used in the study, such as:
 - Level of measurement (normal, ordinal, interval, or ratio) for each quantitative variable
 - Description of parametric, nonparametric, or descriptive analytical tools used
 - Distribution of the quantitative data
 - Statistical power
 - A detailed explanation of how qualitative data will be or were analyzed, procedures used, and units of analysis used.
- Data analysis reflects the phases in alignment with the simultaneous or sequential mixed method design and explains how analysis of qualitative and quantitative data will generate or generated answers to the research questions.

Quality

- Addresses internal and external validity threats.
- Addresses trustworthiness, including credibility, transferability, dependability, and confirmability.

FOR ALL METHODS OF INQUIRY

Summary

- Summarizes key points in the chapter.
- Transitions to Chapter IV.
- Conforms to the recommended length of 15 to 30 pages for Chapter III.

Chapter IV: Results

This chapter focuses on presentation of the results of the analysis of data gathered through the procedures detailed in Chapter III. The data analysis reported in Chapter IV must align with the processes detailed in Chapter III. The data are not presented as “raw” data. Instead, the student presents the results of the analyses conducted, aligned with the research questions and, if used, hypotheses.

Presentation of the results places the findings in the context of the research questions and/or hypotheses. The format and content of this Results chapter differs greatly depending on whether the study is qualitative, quantitative, or mixed method. The checklists below are labeled accordingly. Write Chapter IV in past tense.

- Organizes all results such that they are easily understood by the reader (do not just present masses of data for the reader to analyze).
 - Leads the reader carefully through the findings, highlighting the most important observations.
- Presents a simple, clear, and complete account of the results.
 - Uses APA-formatted tables, charts, graphs, and/or illustrations for clarity.
 - Does not just copy and paste the outputs of statistics or other programs.
 - Omits discussion of the findings (which is presented in Chapter V).

[Introduction]

- Begins with the purpose of the chapter, how it fits in the dissertation, and discusses the organization of the chapter
- Re-establishes the purpose of the study and the research questions [and hypotheses].

Pilot Study

- Discusses details regarding conducting the pilot study, if applicable.
- Describes and justifies modifications to existing instruments or procedures based on the results of pilot test.

[Qualitative]

Sample

- Presents a description of the sample participants and sample demographics or other appropriate characteristics of the unit(s) of study.

Data Collection

- Summarizes the actual logistics of the data collection.
- Describes unusual circumstances encountered during data collection.

Data Analysis and Results

- Presents the results of analysis, rather than raw data, illustrated with selected representative quotes in a way that makes sense to the reader.
- Clearly presents the findings.
 - Builds logically from the problem and the research design.
 - Presents the findings, reflecting analysis consistent with the specific research design— goes beyond reporting percentages of who said what or just identifying themes and patterns.
 - Presents the findings by major themes and sub-themes using section headings that are representative of the themes.
 - Presents findings in a manner that addresses the research questions.

- Supports all findings with data.
- Accounts for all salient data in the findings.
- Includes discrepant cases and non-confirming data in the findings.

[Quantitative]

Sample

- Presents description of the sample and sample demographics or other appropriate characteristics of the unit of study.
 - Does not present raw data; presents results of descriptive and inferential analyses in a way that makes sense to the reader.

Data Collection

- Summarizes the actual logistics of the data collection.
- Describes unusual circumstances encountered during data collection.

Data Analysis and Results

- Organization of results aligns with and addresses research questions and hypotheses.
- Findings are presented by major themes and sub-themes, using section headings that are representative of the themes.
- Demonstrates rigorous methodological approaches.
 - Reflects appropriate and correct use of data collection instruments.
 - Uses research conventions and standard language/terminology to describe measures.
 - Reports results of pilot tests, if used.
 - Describes and justifies modifications to existing instruments or procedures based on the results of pilot test.
 - Describes how any modifications affect instrument scoring and/or interpretation.
- Results of data analyses:
 - Uses appropriate tools and approaches to display results.
 - Makes interpretation and explanation of results consistent with the analyses.
 - Reflects alignment with the specific research design, the research questions or hypotheses, and the theoretical or conceptual framework of the study.
 - Makes the organization and presentation of results correspond to and address each research question and hypotheses, when used.
 - Reports results of hypothesis testing and indicates support for accepting or rejecting the null hypothesis when hypotheses are used.
 - Develops sound analyses with appropriate use of statistics.
 - Reports results that reflect conventional research language and format.
- Highlights findings that approach statistical significance, such as $p < .10$.
- Identifies any inconsistencies or contradictions reflected in the findings and suggests plausible explanations.
- Includes additional findings.

Conclusions

- Concludes by logically and systematically summarizing the results pertaining to the research questions and hypotheses.

[Mixed Method]

Sample

- Presents description of the sample and sample demographics, or other appropriate characteristics of the unit of study, for both phases of the study.
 - Does not present raw data; presents results of descriptive and inferential analyses and analysis of qualitative data in a way that makes sense to the reader.
 - Description of the sample reflects sample size and characteristics for each phase of the research (qualitative and quantitative).

Data Collection

- Summarizes the actual logistics of the data collection.
- Describes unusual circumstances encountered during data collection.

Data Analysis and Results

- Organization of results aligns with and addresses the research questions and hypotheses, consistent with the type of mixed method design.
- Findings are presented by major themes and sub-themes, using section headings that are representative of the themes.
- Presents the approaches and results for both phases (qualitative and quantitative).
 - For an explanatory design, presents quantitative results first, describes how these findings were explored in the qualitative phase, and then presents the qualitative findings.
 - For an exploratory design, presents qualitative results, explains how these findings informed the quantitative phase, and then presents the quantitative findings.
 - In a triangulation design, presents both sets of data and triangulates the findings from the two phases.
- Demonstrates rigorous methodological approaches.
 - Reflects appropriate and correct use of data collection instruments.
 - Uses research conventions and standard language and terminology to describe measures.
 - Reports results of pilot tests, if used.
 - Describes and justifies modifications to existing instruments or procedures based on the results of pilot test.
 - Describes how any modifications affect instrument scoring and/or interpretation.
- Results of data analyses:
 - Uses appropriate tools and approaches to display results.
 - Interprets and explains results consistent with the analyses.
 - Reflects alignment with the specific mixed method research design, the research questions or hypotheses, and the theoretical or conceptual framework of the study.
 - Makes the organization and presentation of results correspond to and address each research question and hypotheses, when used.
 - Reports results of hypothesis testing, and indicates support for accepting or rejecting the null hypothesis when hypotheses are used.

- Develops sound analyses with appropriate use of statistics.
- Reports the results that reflect conventional research language and format.
- Highlights findings that approach statistical significance, such as $p < .10$.
- Identifies any inconsistencies or contradictions reflected in the findings and suggests plausible explanations.
- Includes additional findings.

Conclusions

- Concludes by logically and systematically summarizing the results pertaining to the research questions and hypotheses.
- Recommended length of Chapter IV is variable, based on the nature of the data.

CHAPTER V: DISCUSSION

The discussion chapter is where you interpret the importance of your findings for research and practice and discuss your results within the context of other research on the topic. You may want to go back and update Chapter II with any new research studies that may now seem important to the study. In Chapter V, you will address the extent to which your results converge with or diverge from previous research. You will revisit the research you reviewed in your introduction and review of literature, and any other pertinent literature, and discuss how your results add to the knowledge on the topic. You should also discuss any limitations of your research (e.g., generalizability issues or measurement limitations). Finally, you will discuss the implications of your results and applications to practice, if appropriate, and provide suggestions for future research. [Section headings below are only suggestive.] Write Chapter V in past tense.

[Introduction]

- Begins with the purpose of the chapter, how it fits in the dissertation, and the organization of the chapter.
- Reviews the need for the study, the purpose of the research, the research questions that guided the study, and briefly restates the findings presented in Chapter IV.
 - A restatement of the research problem is helpful to provide context.

Interpretation of Findings

- Includes an overview and interpretation of the major findings of the study.
 - Includes conclusions that address all the research questions and/or hypotheses.
 - Carefully examines all findings, including those that do not support or only partially support the hypotheses (quantitative only).
 - Contains references to all results reported in Chapter IV.
 - Is comprehensive in terms of addressing the range of findings.
 - Is bound by the evidence collected.

Limitations of Study

- Discusses limitations that may affect the validity, generalizability, or trustworthiness of the results.
- Includes a reflection on the researcher's experience with the research process (qualitative only).
 - Discusses possible personal biases or preconceived ideas and values.
 - Discusses the influence of the researcher on the participants or the situation.
 - Reflects on student's changes in thinking because of the study.

Implications for Theory and Research

- Situates the findings in a larger body of literature on the topic, including the conceptual/theoretical framework.
 - Considers the findings in juxtaposition with published research studies.
 - Discusses implications of the current study findings as pertinent to current theory.
 - Discusses implications of findings that support, extend, and refute prior knowledge.

Implications for Practice

- Includes implications of the current study's findings for professional practice or applied settings (if applicable).

Recommendations for Further Research

Based on the findings of the current study:

- Identifies topics that need closer examination and may generate a new round of research questions.
- Recommends alternative research methods and design.

Conclusion

- Closes with a strong conclusion statement that makes the "take-home message" clear.
- Conforms to the recommended length of 15 to 25 pages for Chapter V.

References

- Alphabetically lists **all** references cited in the dissertation.
- Uses the most current version of the *Publication Manual of the American Psychological Association* style guidelines for listing references.
- Does **not** list references that were not cited in the dissertation.

Appendix (or Appendices)

- Includes all additional information or materials that support, but are not a part of, the study in Chapters I–V.

Examples include:

- Copies of instructions for participants;
 - Permissions obtained from organizations or agencies to use resources, materials, or facilities;
 - Copies of informed consent forms and instrumentation;
 - Descriptions of any special conditions of the research, etc.; and
 - Tables or graphs that supplement, but do not provide primary data gained from the study (subject to recommendations made elsewhere in this document).
- Student has permission from copyright holder to include previously copyrighted materials such as tests and measures.
- Redact (black out) phone numbers and email addresses of student, chair, and participants where appropriate

Biographical Statement (Optional)

- Includes a brief biographical statement about the author. The focus should be on the professional aspects of the individual's life but may include items such as place of birth, educational background, significant life events, reasons for choosing the field of study/specialization, and interest in the content of the study.