The Essential Dissertation Resource

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Advancement Through Clarity

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In *The Essential Dissertation Resource*, Statistics Solutions has culled templates and examples from more than 20 years of experience working with doctoral students from around the country, using both qualitative and quantitative methods, from online and brick-and-mortar schools, and in diverse fields, such as business, psychology, nursing, education, and many others. *The Essentials* book will help graduate students get started on their dissertation by providing a framework to begin plugging in discipline and topic specific materials. The book also applies to those working on their theses or projects.

We hope you find this free book helpful!

Very best,

The Statistics Solutions Team

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Topic Selection Hints

Hints on selecting a topic are based on more than 20 years of helping students pick a topic, finish their dissertation, and move on to their best lives. Know that you do not have to love your topic. If it is a doable project, you can secure participants, and it will pass through IRB quickly (e.g., you're not studying vulnerable populations, such as juveniles, elderly, or incarcerated individuals), then go get started.

If there is a secret to topic selection, it's this: it should be as frictionless as possible. Your topic is just one part of a research project, which is just one part of your entire degree. Don't over think it.

- ***Hint 1:*** Figure out what data are available. The data can include data that you or your institution collect, or it can be publicly available data. From this data, you can then ask what research questions can be derived from that data. For example, I googled publicly available datasets and numerous sources come up. [Data.gov](https://www.data.gov) at https://www.data.gov has data from business, climate, education, health, manufacturing, science, and various other areas. When I clicked into health care data, 7 pages of datasets resulted. The beauty of existing datasets is that you'll likely expedite your IRB/URR process, too!
- ***Hint 2:*** Just Decide. I've met a lot of people who don't have a topic because they have *too* many topics. JUST PICK ONE. And pick the one that you can easily get data for. You don't get brownie points for picking the perfect topic—you only get brownie points when you finish your degree and few people, if any, care about what topic you selected.

- ***Hint 3:*** Your advisor recommends a topic. Why push against a wall with a new topic if your advisor has one in mind? Advisors are likely to be more helpful in pulling literature and there will be less friction in the process that lays ahead. By the way, this includes the approach, too. Many advisors feel comfortable with either a quantitative or qualitative approach—just go along with them, get support, and keep moving forward.

To be successful in completing your dissertation you must be willing to increase your frustration tolerance. Just know that topic selection is part of that process.

ESSENTIAL Formulas to Create Research Questions and Hypotheses

Let's make things simple: once you have a research question, the null and alternative hypotheses easily follow. So, let's get the research question and the related design nailed down. I'll describe three types of research designs and exemplify them using the topic of emotional intelligence (EI). Further, let's assume EI is measured using the subscales of Emotion Appraisal (EA), Emotion Regulation (ER), and Emotion Usage (EU). For each design, I'll exemplify the research questions and hypotheses.

One-Shot Case Study

One type of one-shot is the one-group, pretest-posttest design. You will need to (a) administer the three subscales to the participants (the pretest measures); (b) give a treatment, such as a 1-hour lecture on empathy for others, flexible planning, creative thinking; and (c) then re-administer the three subscales (the posttest measures). $O_{pretest}$—$X_{intervention}$— $O_{posttest}$

- Research Question: What significant changes did the 1-hour lecture promote in participants' EA, ER, and EU scores from pretest to posttest?
- Null Hypothesis: The 1-hour lecture did not promote changes in participants' EA, ER, and EU scores from pretest to posttest.
- Alternative Hypothesis: The 1-hour lecture did promote changes in participants' EA, ER, and EU scores from pretest to posttest.

A second type of one-shot is the posttest only with nonequivalent groups. In this design, there are two groups, each receives the three subscales, but only one group receives the 1-hour lecture on empathy for others, flexible planning, and creative thinking.

- Research Question: What are the differences in EA, ER, and EU scores by group (experimental group vs. control group)?
- Null Hypothesis: There are not differences in EA, ER, and EU scores by group (experimental group vs. control group).
- Alternative Hypothesis: There are differences in EA, ER, and EU scores by group (experimental group vs. control group).

Quasi-Experimental Design

A common type of quasi-experimental design is the pretest-posttest control group design. In this design, both non-randomly selected groups are administered the three pretest subscales, then the experimental group receives the 1-hour lecture on empathy, and last both groups are re-administered the three subscales posttest.

- Research Question: What are the differences in EA, ER, and EU scores by group (experimental group vs. control group) and administration time (pretest vs. posttest)?
- Null Hypothesis: There are not differences in EA, ER, and EU scores by group (experimental group vs. control group) and administration time (pretest vs. posttest).
- Alternative Hypothesis: There are differences in EA, ER, and EU scores by group (experimental group vs. control group) and administration time (pretest vs. posttest).

True Experimental Design

A common type of true experimental design is also the pretest-posttest control group design. The key difference is that both groups are randomly selected. In this design, both randomly selected groups are administered the three pretest subscales, then one group gets the 1-hour lecture on empathy, and last both groups are re-administered the three posttest subscales.

Use the same verbiage as the quasi-experimental design, except make explicit that the groups were randomly created.

Expanding the Research Questions

Once your primary question is articulated, there are a few ways to expand the question. The first way to develop ancillary research questions is to drill into relevant demographics. For example, drill down by age group, gender, ethnicity, etc. For the one-shot study, one can ask, "Did the 1-hour lecture create changes in participants' EA, ER, and EU scores from pretest to posttest equally for males and females?"

A second way to add research questions is to use the subscales: "Are there correlations among participants' EA, ER, and EU scores?"

The third technique to generate questions is to combine both the demographics and subscales. For example, "Are the relationships among participants' EA, ER, and EU scores similar for males and females?"

Concept Paper Template

Introduction

The introduction should serve as a brief overview of major concepts, background, definition of key terms, and the purpose for your dissertation. Begin with a paragraph that highlights the context and need for your study. For example, you may provide a statistic or contextual information about recent important events that led to the need for your study. Be sure to define any keywords the first time you use them, and if you are conducting a quantitative study, you should mention each of your independent and dependent variables in this section to show how they fit together to form your study. Then, summarize the work that researchers have already done in this area. End this section with a discussion of the gap in literature that you will address through your study.

Because the purpose of this section is to introduce your reader to the study, and essentially lay the groundwork for the need for the study, you should use peer-reviewed sources published within the last 5 years to support your claims in the introduction. The maximum length for this section is 2 pages.

Statement of the Problem

In the problem statement, you clearly articulate the issue that led to the need for the study. You need to both identify and document the need for the study in your problem statement. Begin by highlighting the specific research problem, supported by peer-reviewed sources published within the last 5 years. What is the problem? What is the extent of the problem? What do researchers not know about the topic that they need to know? What is the gap in the literature that your study addresses? You should answer the last question explicitly with a sentence, such as “The gap in the literature addressed by this study is…” or “It is not known….” After you answer these questions, consider the influence of your study. Who is affected by the problem? How is the problem relevant to your field of study, both for researchers and for practice? What would happen if the problem was not addressed? You need to make the case that answering your problem is important and relevant to researchers and to practice.

You should make a couple of considerations in this section. First, the approximate limit for this section is at 250–300 words, or approximately 1–2 paragraphs. In addition, be sure that the problem statement clearly aligns with your purpose and research questions. You can ensure alignment by using the same terminology when you discuss the gap in the literature in your problem statement and research questions.

Purpose of the Study

Begin the purpose statement with a version of the following sentence, “The purpose of this (quantitative/qualitative/mixed methods) study is to…” Complete the statement with a verb that is consistent with your methodology (e.g., explore for qualitative methods, examine for quantitative methods) and a concise statement of your purpose. The phrasing should be consistent with the above gap in the literature statement and with your research questions. Don’t worry about repeating yourself—your readers will praise consistency, even if you use the same exact words. For example, I could say “There is a gap in the literature regarding specific directions for writing a concept paper at my university.” My purpose statement would then be “The purpose of this study is to describe specific directions for writing a concept paper at my university.” This concept is called *alignment*. Also, note that the purpose statement should remain exactly the same, word-for-word throughout your study.

After the purpose statement, you should present some brief information about the study. You can answer the following questions: What is your method for collecting the data? What instruments will you use? What will be your population? Who are they? Where are they located? The purpose statement is typically 150–200 words.

Research Questions

Begin with a brief introductory statement. Often, this is as simple as saying "The research questions for the proposed study are:" Then, list your research questions. Remember, you should use the same words in the problem and purpose statement to ensure alignment. Using the above example, a sample research question could be, "What are specific directions for writing a concept paper at my university?"

The research questions should match your methodology, the gap in the literature, and the purpose for your study. Qualitative research questions are open-ended, meaning you cannot answer them with *yes* or *no* responses. Note that the question word you use (e.g., *how*, *why*, and *what*) will affect the nature of your research question. For example, phenomenological studies address *what* questions, not *how* or *why*. Quantitative research questions are testable, specific, and related to your data. If your study is quantitative, you will need to include hypotheses in the next section. Mixed methods studies must include both qualitative and quantitative research questions. You should clearly indicate which research questions are quantitative and which are qualitative.

Hypotheses

For quantitative studies, include both your null hypotheses and alternative hypotheses related to each research question. You must also operationalize your variables in this section. *Operationalizing* means describing the specific instruments and methods you will use to test each of your variables. Below is the formatting notation for hypotheses:

$H1_0$. This notation means that the null hypothesis for Research Question 1 follows. For Research Question 2, it would read **$H2_0$**, etc.

$H1_a$. This notation means that the alternative hypothesis for Research Question 1 follows. For Research Question 2, it would read **$H2_a$**, etc.

Definition of Key Terms

Definitions is an optional section where you provide clear, concise definitions of specialized terms for your study. These should include terms with which a reader in your field may not be familiar with, or terms that you used in a different way than they are typically used. Note that you should not define generic methodology terms, such as *qualitative*, *quantitative, correlation*, etc. For quantitative studies, you should include definitions for each of your variables, as well as their operational definitions within the proposed study.

Keep in mind a few guidelines when drafting this section. Each of your definitions must be supported by a peer-reviewed, authoritative source—they should not be dictionary definitions, and usually should not come from textbooks, either. Also, remember that this section is optional; if you don't think you need to include it, then don't! When presenting the definitions, do so in alphabetical order, and remember to keep formatting of each definition and entry consistent. Below is an option for formatting:

Term 1. Define your term (provide authoritative, peer-reviewed APA citation).

Term 2. Define your term (provide authoritative, peer-reviewed APA citation).

Theoretical Framework

Begin this section by identifying the theory, its founder, and the citation for the original text. Review the following sentence as a guide, "The theoretical framework for this study is X, developed by Y (date of original work)." The theory, in most cases, should be pulled from research within your field. For example, a psychological theory should be used for a psychological dissertation, but may not apply to a business dissertation. In interdisciplinary studies, you may select a theory outside of your field, but you will need to justify its use. Also, it is important to consider that your chair or committee may have specific opinions about the theoretical framework that you choose—it is good practice, if you're stuck, to ask for their opinion on what frameworks you might consider applying.

Next, discuss major tenets of the theory, especially those related to your study. You should also discuss any major developments in the theory and controversies related to your topic, as appropriate. Support your discussion with scholarly, peer-reviewed sources, both historical and current. Note that the reviewers will be looking for evidence that you understand both the history of the theory as well as how it is applied presently. Continue this section with a discussion of similar studies to your own in which researchers have applied the theory.

In the next paragraph, you want to provide information regarding how the theory applies to your study and how your study extends or contributes to the theory. First, clearly outline how this theory will provide explanatory value for your own purpose. What major concepts from the theory will help interpret your results? Finally, end the section by discussing how your study will contribute to the theory. Will it answer a controversy? Apply the theory to a new context?

Some studies may require the use of more than one theory. In this case, you should go through the steps above for each theory that you include. Then, at the end of the theoretical framework, you should provide a paragraph that ties the theories together and makes note of why each different theory will be required to interpret your results.

Brief Review of the Literature

The literature review is and will be a key component of your scholarly research. For the concept paper, your goal is to demonstrate that you have conducted a sufficient search of the historic and current academic literature to show that your study fulfills a gap in the literature. You must include at least 7 sources, but including 10–15 is usually necessary to fulfill this purpose. The sources must be scholarly and peer reviewed, and the majority should be published within the last 5 years.

Start your review of the literature with a synthesizing statement about the state of research on your topic. You can consider this a preliminary summary of your literature review. What do researchers know about your topic? When did they start studying it? What have they studied? What types of methodologies have they used? What is missing, and how does your proposed study address those gaps? Many chairs will require that you provide information on your literature search, so you may want to include information about what databases you searched, what keywords you used, and what important researchers and journals came up when you were searching. Then, provide an overview of the organization of the literature review, addressing each of the subheadings you include.

Subheadings

Your brief review of the literature should include several subheadings to organize material. Use the APA formatting of Level 2, as above, to indicate a new subheading. The title of the subheading should reflect the content of that section; if you begin discussing a new topic, then you should create a new subheading.

There are a few tips that will help you to create a useful literature review. Successful literature reviews typically begin broadly and narrow to the topic by the end. For example, if you are conducting a quantitative study with two independent variables, X and Y, and one dependent variable, Z, you first need to discuss literature related to X, Y, and Z alone, then discuss the literature that includes X, Y, and Z together.

You should include an appropriate range of findings to avoid bias in your research. You may be trying to prove a relationship exists between Z and X and Y, but some researchers may have found that this relationship does not exist. That doesn't mean your study is invalid! You just need to provide evidence of why you think your outcome might be different. Similarly, if literature overwhelmingly shows that X, Y, and Z have a relationship, you need to show why you think that conducting your study will add to the body of literature. At this point, some researchers find it necessary to tweak their research questions and purpose slightly to address a gap in the literature. This is great practice; changing tact now to address a real gap in the literature will save you time later if your reviewers question whether your study was necessary.

The ultimate goal of the literature review is to make an argument for studying your topic. For the entries, you should be synthesizing and analyzing the literature with this goal in mind, rather than just summarizing. Note that the literature review is not the same as an annotated bibliography; in fact, it may be best for you to try to make sure that you cite at least 2 sources per paragraph to avoid annotated bibliography format. Synthesizing your sources includes comparing and contrasting studies. What have different researchers found? Do they agree on certain topics? Do they disagree? Have they used qualitative, quantitative, or mixed methods approaches? What populations have different researchers studied? Are they the same, or different from your own? Analyzing means you discuss limitations of these approaches and gaps in the findings. Together, the synthesis and analysis should clearly lead up to the need for your study.

Summary

The literature review ends with a summary of your findings. Again, this section should make an argument for your proposed study, but keep it brief. You might organize it by answering the following questions in order, What is known about this topic? What is missing in knowledge? What methodologies have been used? What methodologies are needed? What is the gap in literature (remember, this should align with your problem statement, purpose statement, and research questions)? How will your study address this gap in the literature?

Research Method

The research method should align with the purpose of the study and the gaps in the literature. First, discuss the method and design and how they achieve the purpose and research questions. You should discuss the methods and designs that you did not choose, and why they were not appropriate, as well as the one that you did choose, and why it is appropriate. You should cite the foundational researchers for the methods and designs, and not textbook citations, such as Creswell. Some qualitative foundational researchers you might consider could include Yin's *Case Study Research* (2014) for a case study, Moustakas's *Phenomenological Research Methods* (1994) for a phenomenology, or Clandinin and Connely's *Stories of Experience and Narrative Inquiry* (2000) for a narrative inquiry study. For a quantitative study, you might consider publications like Leedy and Ormrod's *Practical Research: Planning and Design, 11th Edition* (2016) or Howell's *Fundamental Statistics for the Behavioral Sciences* (2016), which covers most statistical analyses, how to choose them, and how they relate to research designs.

Operational Definition of Variables

For quantitative studies, include the variables and how they will be measured within the study in this section. This includes a discussion of the instruments and data analyses used to measure the constructs. Use the same formatting as you did in the definition of terms.

Construct/Variable 1. First, describe the variable. Then, discuss how you will measure the variable, such as nominal, ordinal, interval, or ratio. Discuss potential variations in the score that a person could expect to see (e.g., on a 1–5 scale, 0–100 scale, etc.) or different levels or categories (such as male or female). Finally, include a discussion of the instrument and how you will collect data from the data collected from the instrument. The discussion of the instrument should include a discussion of the use of the proposed instrument and its validity in previous studies. Note that you must use an established instrument from a scholarly source; dissertations are typically not acceptable sources for instruments.

Measurement

In this section, you should first discuss how the proposed methodology will achieve your research purposes, stated in your purpose statement, research questions, and hypotheses. Then, write out a specific plan for data collection, followed by a plan for data analysis. This section should be as explicit and specific as possible; you might think that you are oversharing or including unnecessary steps, but including as much information as possible in this initial plan will streamline your process at this stage as well as when you enter the proposal stage. Also, be sure that the data collection and analysis procedures align with the purpose of the research.

The data collection and analysis procedures will differ depending on whether you are conducting a quantitative or qualitative study. For quantitative studies, you'll need to describe your survey instrument. You should avoid self-developed instruments when at all possible. If you do develop your instrument, you will be required to conduct validation processes that may end up taking you more time than doing extensive research to see what is available for you already. Qualitative studies are typically guided by interview protocol, developed by the researcher. The data analysis for qualitative studies involves choosing a method of interpretation. Data analysis methods can range from broad (meaning that they can be used for multiple designs), such as Braun and Clarke's *Thematic Analysis* (2006), to very specific, such as Smith, Flowers, and Larkin's *Interpretive Phenomenological Analysis* (2009), which would be used in a phenomenological study. Another great resource is Saldaña's *Coding Manual for Qualitative Researchers* (2013), which covers a number of analyses that can be used with many different qualitative designs. Do some research to see which of these options work best for your specific study, and be ready to justify your choice for your chair and committee.

Summary

In this section, pull all parts of the concept paper together. This should serve as a crystallized form of your concept paper. You can organize the section in this order: the need for your study, your problem, your purpose, and your method. Think of it as a final argument for your proposed research.

Prospectus Template

Prospectus: Title

Problem Statement

Offer a strong opening here with a powerful (cited) statement that will grab the reader's attention. Follow the opening statement with a staggering statistic that validates the existence of the current problem (also cited). State the research problem. Frame the problem in a way that builds upon or counters previous research findings, focusing primarily on research conducted in the last 5 years. Address a meaningful gap in the current research literature.

You may choose to include both the general problem statement (a broad concept of the problem), and the specific problem statement (the focus of the study). Use keywords, such as "the specific problem is …" and be sure to indicate a problem as a gap between the current state of a situation and the desired state of a situation (current status of the topic in the literature). Your sentence that directly states the research problem should be a variation of your central research question to ensure alignment. *Notes:* Check your specific school's guidelines and adhere to their formatting and wording suggestions where applicable. This section should be concisely written and about a half a page in length.

Purpose

Provide a concise statement that serves as the connection between the problem being addressed and the focus of the study. The purpose contains: (a) an indication that this is a qualitative/quantitative study; (b) the study intent (indicate whether the study will describe, compare, correlate, explore, or develop); and (c) the independent, dependent, and covariate variables (*Please note:* this section is not required for all schools—check your school's specific guidelines. This is often included in the above Problem Statement section). This section should be concisely written and about a half a page in length.

Significance

Be sure to answer the question, "so what?" and align with the problem statement. The Significance of the Study is described in terms of (a) advancing theory, (b) advances in practice, and (c) filling a gap in the literature. Be certain to address and include the phrase *positive social change* in this section if indicated by your school's template or guidelines. *Notes*: This section, including the three subsections, should be 1–2 paragraphs in length.

Background

Briefly, summarize the research literature that outlines the scope of the study topic and indicates that this is a current problem. Include references and findings that support the problem statement and highlight the relationship of each to your topic. This area should also include 5–10 articles that justify your study. You can use this literature to trace the problem from its initiation to its current state. Describe the gap in the literature that the study will address. End the section regarding why the study is needed; this must go beyond just filling a gap in the literature. *Notes*: This section should be 1–2 pages in length.

Framework

The framework is based on the problem, purpose, and background of your study and informs, as well as is informed by the research questions. Studies must include either a theoretical foundation or a conceptual framework section; studies may include both or just one.

Identify the theory or theories and provide the origin or source. State concisely the major theoretical propositions or major hypotheses with a reference to a more detailed explanation in Chapter 2. Explain how the theory relates to the study approach and research questions. *Notes*:

Typically, qualitative studies have a conceptual framework while quantitative studies have a theoretical foundation—both are presented in the same fashion. This section should be about 1 paragraph in length.

Research Questions

State the research question(s). State the null and alternative hypotheses (where applicable) that identify the independent and dependent variables being studied, the association being tested, and how the variables are being measured. This section should be 1–3 paragraphs in length.

Nature of the Study

Provide a concise rationale for selection of the design or tradition. Briefly, describe the key study variables (independent, dependent, and covariates). Briefly, summarize the methodology (from whom and how data are collected and how data will be analyzed) and discuss how the approach used will address the research questions as well as how it aligns with the problem statement. *Notes*: This section should be about 1 paragraph in length.

Quantitative: for experimental, quasi-experimental, or nonexperimental designs; treatment-control; repeated measures; causal-comparative; single-subject; or predictive studies.

Qualitative: for ethnography, case study, grounded theory, narrative inquiry, phenomenological research, or policy analysis.

Mixed Methods, primarily quantitative: for sequential, concurrent, or transformative studies, with the main focus on quantitative methods.

Mixed Methods, primarily qualitative: for sequential, concurrent, or transformative studies, with the main focus on the qualitative methods.

Possible Types and Sources of Data

Include *possible* types and sources of data or information here. For example, if you are using archival data, discuss how it will be collected from its current source, or if you are collecting perceptions, discuss the interview protocol. Approximately 2–3 bullet points in length.

Introduction Template

Chapter 1: Introduction to the Study

Describe the topic of the study, why the study needs to be conducted (gap), and the potential implications. Preview the major sections of the chapter. *Notes*: If you have any questions on completing this section, consult Statistics Solutions to work with a Senior Research Associate. This introduction to the chapter should be less than 1 page in length.

Each of the following sections contains a suggested page length; however, the length of each section should be determined by sufficiency, completeness, and the specific guidelines of your individual school.

Background of the Study

Briefly, summarize the research literature that outlines the scope of the study topic and indicates that this is a current problem. You can use this literature to trace the problem from its initiation to its current state. Describe the gap in the literature that the study will address. End the section by explaining why the study is needed; this must go beyond just filling a gap in the literature. This section should be 2–4 pages in length.

Problem Statement

Offer a strong opening here with a powerful (cited) statement that will grab the reader's attention. Follow the opening statement with a staggering statistic that validates the existence of the current problem (also cited). State the research problem. Frame the problem in a way that builds upon or counters previous research findings focusing primarily on research conducted in the last 5 years. Address a meaningful gap in the current research literature.

You may choose to include both the general problem statement (a broad concept of the problem), and the specific problem statement (the focus of the study). Use keywords and phrases, such as "the specific problem is …" and be sure to indicate a problem as a gap between the current state of a situation and the desired state of a situation (current status of the topic in the literature). Your sentence that directly states the research problem should be a variation of your central research question to ensure alignment. *Notes*: Check your specific school's guidelines and adhere to their formatting and wording suggestions where applicable. This section should be concisely written and about a half a page in length.

Purpose of the Study

Provide a concise statement that serves as the connection between the problem being addressed and the focus of the study. The purpose contains (a) an indication that this is a qualitative or quantitative study; (b) the study intent (indicate whether the study will describe, compare, correlate, explore, or develop); and (c) the independent, dependent, and covariate variables. This section should be succinct and about a half a page in length.

Research Question(s) and Hypotheses

State the research question(s). State the null and alternative hypotheses (where applicable) that identify the independent and dependent variables being studied, the association being tested, and how the variables are being measured. *Notes*: If necessary, consult Statistics Solutions to work with a statistician for assistance in completing this section. This section should be 1–3 pages in length.

Theoretical Foundation

Studies must include either a theoretical foundation or a conceptual framework section; studies may include both or just one. Identify the theory or theories and provide the origin or source. State concisely the major theoretical propositions or major hypotheses with a reference to a more detailed explanation in Chapter 2. Explain how the theory relates to the study approach and research questions. *Notes*: Typically, qualitative studies have a conceptual framework while quantitative studies have a theoretical foundation. This section should be about 1 page in length.

Conceptual Framework

This applies to qualitative studies. Identify and define the conceptual framework (a description of the research that supports the need for the study) as derived from the literature—a more detailed analysis will appear in Chapter 2. State the logical connections between the tenets of the theory and the purpose of your study to justify the use and research design with multiple references—a more thorough and in-depth explanation will appear in Chapter 2, so excessive detail is not necessary here. State how the framework relates to the study approach and key research questions, as well as to the instrument development and data analysis where appropriate. This section should be 1–3 pages in length.

Nature of the Study

Provide a concise rationale for selection of the design or tradition. Briefly, describe the key study variables (independent, dependent, and covariates). Briefly, summarize the methodology (from whom and how data are collected and how data will be analyzed). This section should be 1–3 pages in length.

Definitions

Define terms used in the study that have specific meanings in this context. Do not include common terms or terms that can easily be looked up in a dictionary. Include citations that identify support in the professional literature for the definition or operational definition. All definition citations should be from peer-reviewed literature. *Notes*: Definitions should be formatted according to your school's guidelines as well as alphabetized. This section should be between 1–3 pages in length.

Assumptions

Clarify aspects of the study that are believed but cannot be proven to be true. Only include assumptions critical to the meaningfulness of the study. Describe the reasons why the assumptions were necessary in the context of the study. This section should be around 1 page in length.

Scope and Delimitations

This section speaks to the specific boundaries (geography) of your study (what is and what is not included). Describe specific aspects of the research problem that are addressed in the study and why the specific focus was chosen (issue of internal validity). Define the boundaries of the study by identifying populations (including demographics, such as socioeconomic status, ethnicity, and gender, when applicable) included and excluded. Address potential generalizability. This section should be around 1 page in length.

Limitations

Describe limitations of the study related to design or methodological weaknesses (including issues related to limitations of internal and external validity, construct validity, and confounding variables). Describe any biases that could influence study outcomes and how they are addressed. Describe reasonable measures to address limitations. This section should be around 1 page.

Significance of the Study

The Significance of the Study is described in terms of (a) advancing theory, (b) advances in practice, and (c) filling a gap in the literature. Be certain to address and include the phrase *positive social change* in this section if indicated by your school's template or guidelines. This section, including the three subsections, should be 3–5 pages in length.

Summary and Transition

Summarize main points of the chapter. Provide a transition to Chapter 2. This section should be around 1 page in length.

Literature Review Template

Chapter 2: Literature Review

Restate the problem and the purpose in an introductory manner. Provide a succinct synopsis of the current literature that establishes the relevance of the problem. Preview major sections of the chapter, including headings and main points to be covered. This introduction to the chapter should be less than 1 page in length.

Literature Search Strategy

List accessed library databases and search engines used. List key search terms and combinations of search terms in italics. Be sure to indicate that current literature and sources were searched (those within the last 5 years), as well as seminal literature. In cases where there is little current research, and few (if any) dissertations or conference proceedings describe how this was handled after discussing the situation with your chair. Italicize the search terms (except the final "and," which is not italicized). *Note*: This section should be 1–3 pages in length.

Theoretical Foundation

Clearly outline the theory or theories and corresponding theorists. Provide historical background or source of the theory and any applicable underpinnings. Describe major theoretical propositions or major hypotheses, including delineation of any assumptions appropriate to the application of the theory where applicable. Provide a literature and research-based analysis of how the theory has been applied previously in ways similar to the current study (3–4 current studies, minimum). Provide the rationale for the choice of this theory; outline how this theory, specifically, will enhance the design of the study. Describe how and why the selected theory relates to the present study and how the research questions relate to, challenge, or build upon existing theory. *Note*: This section should be 3–6 pages in length.

Conceptual Framework

Approach this section in the same way as a Theoretical Framework.

Literature Review

Provide an exhaustive review of the current literature that includes the following information:

- Identify and describe studies related to the study topic and chosen methodology that are consistent with the scope of the study.
- Explore ways in which researchers in the discipline have approached the problem. Outline the strengths and weakness inherent in each of their approaches.
- Justify, from the literature, the rationale for selection of your operational variables as well as concepts where necessary.
- Review and synthesize studies (under each heading) related to the key variables in order to produce a description of what is known about the study topic, what is controversial, and the remaining gaps in the literature to be studied.

Note: This section should be 20–40 pages in length.

Summary and Conclusions

Succinctly summarize major themes outlined in the literature. Briefly summarize what is known and what is not known (this frames the gap in the literature). Directly describe how the present study fills the gap in the literature and will extend knowledge in the discipline. Provide transitional material to connect the gap in the literature to the methods described in Chapter 3.

Note: This section should be around 1 page in length, but may be shorter.

Quantitative Methodology Template

Chapter 3: Research Method

Restate the study purpose as described in Chapter 1. Include the research questions and give a brief (think 1–2 sentences) description linking the research questions to the purpose of the study. Preview the major sections of the chapter. *Note*: This introduction to the chapter should be less than 1 page in length.

Research Design and Rationale

Concisely state the study variables (independent, dependent, covariate, mediating, or moderating variables) as appropriate. Identify the research design and its connection to the research questions. Make sure this justification addresses why quantitative methodology is best suited to address your research questions (e.g., your study uses well-established measures that have been quantified, you are looking to investigate relationships, or differences between variables, etc.).

Describe how the design choice is consistent with research designs needed to advance knowledge in the discipline. Be clear and concise regarding why you have selected a nonexperimental, quasi-experimental, or experimental design. Additionally, be sure to clearly state the design (e.g., correlational, causal comparative) and how the selected design aligns with the type of questions you are asking in your study. For example, if you intend to assess the predictive relationship between a set of independent variables and a dependent variable, you would need to first state that you are using a correlational design, and then provide scholarly citations and rationale explaining why you have selected this design. If conducting an intervention study, defend the choice of intervention. *Note*: This section should be 1–3 pages in length.

Methodology

The following sections provide an in-depth description of how you will conduct your study. This section needs to be described in sufficient depth so that other researchers can replicate the study.

Population

Define the target population. State target population size (if known) or approximate/estimated size. In this section, you should be as descriptive as possible regarding the parameters for your population and describing your population. If you have any demographic information that you can provide to help the reader gain a better sense of the individuals who comprise your sample, please include that information here. *Note*: This section should be less than 1 page in length.

Sampling and Sampling Procedures

Identify and justify the type of sampling strategy. The most common sampling strategies used by doctoral learners are purposive sampling, convenience sampling, and snowball sampling. Please note that snowball sampling is a secondary sampling strategy. This means that you will choose another sampling strategy to identify your primary participants, and then use participant referrals to bring in additional participants.

Explain specific procedures for how the sample will be drawn. This explanation should include the gatekeeper you will contact to connect with your participants. Detail for the reader exactly how you will recruit participants and any screening you will conduct, if applicable. Thoroughly describe recruiting procedures and particular demographic information that will be collected. Describe the sampling frame (inclusion and exclusion criteria). Use a power analysis to determine sample size and include (a) justification for the effect size, alpha level, and power level chosen; and (b) cite the source for calculating or the tool used to calculate the sample size. *Note*: This section may be about 1 page in length.

Participation and Data Collection (Primary Data)

Describe how participants will be provided informed consent. Describe how data will be collected. Explain how participants exit the study (e.g., debriefing procedures). Describe any follow-up procedures, such as requirements to return for follow-up interviews, treatments, etc. Describe how data will be stored.

Please note that this section is extremely important. This section outlines how future researchers can replicate your study. Your study must be presented, in detail. Map the study out in short form separately and then draft this section with sufficient detail for future replication. *Note*: This section will vary greatly in length, at least 1 page minimum.

Pilot Study

Delete this section if there will not be a pilot study. Describe the relationship of the pilot study to the main study (for example, what is the purpose of the pilot study?). This section should include the number of participants in the pilot study and the conditions under which the pilot study will be conducted. Include the IRB approval number (completed dissertation). *Notes*: This section may not be appropriate for all studies, but if provided should be 1–3 pages in length. Many of the techniques used in the primary study and the pilot study may be the same.

Intervention

Delete this section if you are not implementing an intervention. If conducting an intervention, describe clearly and thoroughly the nature of the treatment, intervention, or experimental manipulation, how it will be designed and administered, and by whom and to whom it will be administered. *Note*: This may be 1–2 pages in length.

Archival Data

Include this section if archival data will be used in the study; otherwise, delete. Include all procedures for recruitment, participation, and data collection associated with the main study. Describe the procedure for gaining access to the dataset. Describe necessary permissions to gain access to the data (with permission letters located in an appendix). If historical or legal documents are used as sources of data, demonstrate the reputability of the sources and justify why they represent the best sources of data. *Note*: This section will be at least 1 page in length.

Instrumentation and Operationalization of Constructs

For published instruments, provide:

- Name of developer(s) and year of publication.
- Appropriateness to the current study.
- Permission from developer to use the instrument (permission letter should be included in an appendix).
- Published reliability and validity values relevant to their use in the study.
- Where or with what populations the instrument was previously used and how validity or reliability values were established in the study sample.

For all researcher instruments, provide:

- Basis for development (literature sources or other bases for development, such as a pilot study).
- Plan to provide evidence for reliability (e.g., internal consistency and test and retest).
- Plan to provide evidence for validity (e.g., predictive and construct validity).
- Establish sufficiency of instrumentation to answer research questions.

- Operationalization. For each variable describe: (a) its operational definition; (b) how each variable is measured or manipulated; and (c) how the variable or scale score is calculated, what the scores represent, and an example item.

Note: This section may be 2–4 pages in length.

Data Analysis Plan

Identify software used for analyses. Describe how data will be imported into the software that will be used. Provide an explanation of data cleaning and screening procedures as appropriate to the study. The data cleaning and screening information should address how you will screen for outliers, accuracy, and missing values, as appropriate. Restate the research questions and hypotheses here as written in Chapter 1. Describe in detail the analysis plan, including the elements below:

- Statistical tests that will be used to test the research question(s) and hypothesis(es). Be sure to address how the selected analysis allows you to assess the research question(s).
- Procedures used to account for multiple statistical tests, as appropriate.
- Rationale for inclusion of potential covariates or confounding variables.
- How results will be interpreted (e.g., key parameter estimates, confidence intervals or probability values, odds ratios). Assumptions of the selected analysis and how the assumptions will be tested.

Note: This section may be 3–6 pages in length.

Threats to Validity

External Validity

Describe threats to external validity (e.g., testing reactivity, interaction effects of selection and experimental variables, specificity of variables, reactive effects of experimental arrangements, and multiple-treatment interference, as appropriate to the study) and how they will be or were addressed. *Note*: This section may be 1–2 pages in length.

Internal Validity

Describe threats to internal validity (for example, history, maturation, statistical regression, experimental mortality, and selection-maturation interaction as appropriate to the study) and how they will be or were addressed. *Note*: This section may be about 1 page in length.

Construct Validity

Describe any threats to construct or statistical conclusion validity. *Note*: This section may be about 1 page in length.

Ethical Procedures

Begin this section with a description of what approvals must be gained to access participants or data (include actual documents in the Institutional Review Board [IRB] application). Describe the treatment of human participants including the following (include actual documents in the IRB application):

- Include institutional permissions, such as IRB approvals that are needed (proposal) or were obtained (for the completed dissertation, include relevant IRB approval numbers in the final dissertation).

- Ethical concerns related to recruitment, materials, and processes and a plan to address them. Ethical concerns related to data collection or intervention activities (these may include participants refusing participation or early withdrawal from the study and response to any predicable adverse events) and a plan to address them. Describe treatment of data (including archival data), including issues of: (a) whether data are anonymous or confidential and any concerns related to each, (b) protection for confidential data (data storage procedures, data dissemination, who will have access to the data, and when the data will be destroyed), and (c) other ethical issues as applicable (these issues could include doing a study within one's own work environment; conflict of interest or power differentials, and justification for use of incentives). *Note*: This section should be 1–3 pages in length.

Summary

Summarize the design and methodology of the method of inquiry. Provide a transition statement to Chapter 4. *Note*: This section should about 1 page in length.

Quantitative Sample Size/Power Analysis Write-up

Once you identify the statistical test you will conduct, our power analysis tool calculates your sample size for a power of .80 with an alpha of .05 for small, medium, and large effect sizes. We have created a simple form where you can select your analysis and we will send you a power analysis write-up for large, medium, and small effect sizes. You can request your power analysis write-up here, http://www.statisticssolutions.com/power-analysis-to-determine-sample-size/

Decision Tree

If you aren't sure about which analysis you would like to conduct, simply use our decision tree, http://www.intellectusstatistics.com/intellectus-statistics-university/decision-tree/

Qualitative Methodology Template

Chapter 3: Research Method

Restate the study purpose as described in Chapter 1. Include the research questions and give a brief (think 1–2 sentences) description linking the research questions to the purpose of the study. Preview the major sections of the chapter. *Note*: This introduction to the chapter should be less than 1 page in length.

Research Design and Rationale

Concisely state the phenomenon of interest as appropriate. Identify the research design and its connection to the research questions. Make sure this justification addresses why qualitative methodology is best suited to address your research questions (e.g., you intend to explore a phenomenon or construct that has scant previous research, you intend to examine how individuals experience a phenomenon rather than to investigate relationships differences between variables, you plan to explore constructs that are not quantifiable, etc.).

Describe how the design choice is consistent with research designs needed to advance knowledge in the discipline. Be sure to clearly state the design (e.g., phenomenology, case study, narrative analysis, etc.) and how the selected design aligns with the type of questions you are asking in your study. For example, if you intend to explore how recent graduates of a newly established degree program transition from school to professional life you, would state that you will use the phenomenological approach, and then provide scholarly citations and rationale explaining why you have selected this design. If conducting an intervention study, defend the choice of intervention. *Note*: This section should be 1–3 pages in length.

Methodology

The following sections provide an in-depth description of how you will conduct your study. This section needs to describe the study method in sufficient depth so that other researchers can replicate the study.

Population

Define the target population. State target population size (if known) or approximate or estimated size. In this section, you should be as descriptive as possible regarding the parameters for your population and describing your population. If you have any demographic information that you can provide to help the reader gain a better sense of the individuals who comprise your sample, please include that information here. *Note*: This section should be less than 1 page in length.

Sampling and Sampling Procedures

Identify and justify the type of sampling strategy. The most common sampling strategies used by doctoral learners are purposeful sampling, convenience sampling, and snowball sampling. Please note that snowball sampling is a secondary sampling strategy. This means that you will choose another sampling strategy first to identify your primary participants, and then use participant referrals to bring in additional participants.

Explain specific procedures for how the sample will be drawn. This explanation should include the gatekeeper you will contact to connect with your participants. Detail for the reader exactly how you will recruit participants and any screening you will conduct, if applicable. Thoroughly describe recruiting procedures and particular demographic information that will be collected. This section should also address the recommendations for sample size in qualitative studies.

There are no definite guidelines regarding the size of the sample so in this section you will focus on finding the recommendations that align best with your approach and the sample size you anticipate being able to access. Finally, be sure to mention saturation in this section. You would need to provide citations regarding what saturation is and how you will gauge saturation. *Note*: This section may be about 1 page in length.

Participation and Data Collection (Primary Data)

Describe how participants will be provided with informed consent. Describe how data will be collected. Explain how participants exit the study (e.g., debriefing procedures). Describe any follow-up procedures, such as requirements to return for follow-up interviews, treatments, etc. Describe how data will be stored.

Please note, this section is extremely important. This section outlines how future researchers can replicate your study. Your study must be presented, in detail. Map the study out in short form separately. Use the short form map to create an outline for this section, then draft this section with sufficient detail for future replication. *Note*: This section will vary greatly in length, at least 1 page minimum.

Pilot Study

Delete this section if there will not be a pilot study. Describe the relationship of the pilot study to the main study (for example, what is the purpose of the pilot study?). This section should include the number of participants in the pilot study and the conditions under which the pilot study will be conducted. Include the IRB approval number (for completed dissertation).

Notes: This section may not be appropriate for all studies, but if provided should be 1–3 pages in length. Many of the techniques used in the primary study and the pilot study may be the same.

Intervention

Delete this section if you are not implementing an intervention. If conducting an intervention, describe clearly and thoroughly the nature of the treatment, intervention, or experimental manipulation, how it will be designed and administered, and by whom and to whom it will be administered. *Note*: This may be 1–2 pages in length.

Archival Data

Include this section if archival data will be used in the study; otherwise, delete. Archival data for qualitative studies may consist of documents, email messages, etc. Be sure to clearly and concisely identify exactly what archival data you will access and who will provide access to the data. Include all procedures for recruitment, participation, and data collection associated with the main study, as appropriate. Describe the procedure for gaining access to the data. Describe necessary permissions to gain access to the data (with permission letters located in an appendix). If historical or legal documents are used as sources of data, demonstrate the reputability of the sources and justify why they represent the best sources of data. *Note*: This section will be at least 1 page in length.

Instrumentation

For data collection instruments that have been previously developed, be sure to thoroughly describe how the instrument was developed and validated in the previous study. Detail the structure of the instrument (e.g., the number of questions or sections included in the instrument) and the nature of the questions. Be sure to explain how the instrument addresses your research questions and provides the data necessary for a thorough data analysis.

For any instruments that you develop, you will need to provide the same information above. You will begin this section with a description of the literature that formed the basis for developing the instrument. Determine and describe how you plan to ensure that the instrument is reliable and valid. Doctoral researchers commonly present their instrument to subject matter experts to review the instrument and provide feedback regarding how appropriate the instrument is for the intended sample, how relevant the questions are, and the clarity of the questions.

Note: This section may be 1 page in length.

Data Analysis Plan

Identify software used for analyses, if appropriate. If using NVivo, be clear in stating that NVivo will be used for data management and organization. The software is not used for in-depth data analysis, although it can be used to conduct some preliminary coding. Describe how data will be imported into the software that will be used.

Restate the research questions and hypotheses here as written in Chapter 1. Describe in detail the analysis method that will be used in the study. You should provide an explanation of how you will implement the chosen data analysis method in your study. Following this description, describe how you will present the findings in your results chapter.

Note: This section will be at least 1 page in length.

Issues of Trustworthiness

This section will address validity and reliability within the context of qualitative research. The discussion should be positioned within the framework established by Lincoln and Guba (1985). There will be four separate sections, one for each aspect of trustworthiness (i.e., credibility, transferability, dependability, and confirmability). In each section you will define the aspect of trustworthiness, and then describe how you will address it within your study. *Note*: This section will be 1–3 pages in length.

Role of the Researcher

This section describes the researcher's unique role within qualitative studies. The positioning of this section varies according to your school's template. In this section, detail your role in data collection, analysis, and reporting. Explain your connection to the participants, including any position of authority or supervision. This section should close with a description of how you will manage your responsibility to report the findings free from the influence of your own biases and presuppositions.

Ethical Procedures

Begin this section with a description of what approvals must be gained to access participants or data (include actual documents in the IRB application). Describe the treatment of human participants, including the following (include actual documents in the IRB application):

- Include institutional permissions, such as IRB approvals that are needed (proposal) or were obtained (for the completed dissertation, include relevant IRB approval numbers in the final dissertation).
- Ethical concerns related to recruitment, materials, and processes and a plan to address them. Ethical concerns related to data collection or intervention activities (these may include participants refusing participation or early withdrawal from the study and response to any predicable adverse events) and a plan to address them. Describe treatment of data (including archival data), including issues of: (a) whether data are anonymous or confidential and any concerns related to each, (b) protection for confidential data (data storage procedures, data dissemination, who will have access

to the data, and when the data will be destroyed), and (c) other ethical issues as applicable (these issues could include doing a study within one's own work environment; conflict of interest or power differentials, and justification for use of incentives). *Note*: This section should be 1–3 pages in length.

Summary

Summarize the design and methodology of the method of inquiry. Provide a transition statement to Chapter 4. *Note*: This section should about 1 page in length.

Qualitative Sample Size

When conducting a study, qualitative researchers focus on reaching saturation, which can be defined as the time at which the addition of a participant will not add any appreciable data or information to the results (Corbin & Strauss, 2008). Saturation is reached when the researcher determines each theme is fully explicated and contains rich, thick, and detailed information. Sampling is determined to be complete when the researcher can state the main themes uncovered during the analysis of the data, provide both depth and variation across participants, and express the perspectives and experiences of the participants (Corbin & Strauss, 2008). As saturation is reached when no new information adds to the themes, data collection can cease. Best practices suggest that data should be analyzed as it is received to enable the researcher to determine saturation. The data gathered during the study must be rich and thick, and the terms are defined as quality and quantity (Fusch & Ness, 2015). To aid in the assessment of saturation, researchers can use a saturation grid during analysis. The grid contains uncovered themes on the vertical and the individual interviews labeled on the horizontal (Brod, Tesler, & Christiansen, 2009). This representation will enable researchers to easily track when themes are no longer emerging through checking off boxes in the matrix. Francis et al. (2010) indicated that once a researcher has conducted three interviews with no new themes emerging, saturation has been reached. Thus, saturation can be measured and assessed fairly easily.

According to Guest, Bunce, and Johnson (2013), the more homogeneous the sample, the easier it is to reach saturation, as the experiences of the participants overlap and aid in creating a clear picture. In their study, Guest, Bunce and Johnson conducted 12 interviews and found that a majority of the codes created had been revealed by the sixth interview. Thus, if at the end of the interview process new themes continue to emerge, the researcher can recruit additional participants. Morse (1994) indicated six participants can be considered to be appropriate; although, the suggested range of participants can vary from as few as 1 to as many as 50. Typically, the appropriate range for a qualitative study falls between 8 and 20. In 1993, Neilsen and Landaur created a mathematical model of saturation based on analysis of six qualitative studies. The researchers found having six participants can reveal at least 80% of all information and increasing that number to 12 raises the percentage to 90%, which is within appropriate limits for qualitative studies. To assure saturation is met, if in the final analysis of the data new information arises, additional interviews should be conducted (Fusch & Ness, 2015).

IRB Approval

The IRB approval process should not be a harrowing experience. It is usually one of the final milestones before you can begin data collection and the point where researchers begin to see “the light at the end of the tunnel.” With that in mind, the most powerful compass that you can use to navigate the IRB process is a clear action plan to complete the IRB application.

The IRB form should detail from beginning to end how you plan to implement your study. The majority, if not all, of the information that will be provided in the IRB application form has already been communicated in your proposal. Because of this, a firm understanding of your proposal is key to successfully completing your application. Outlining your proposal, specifically your Chapter 3, will allow you to create a snapshot of your research, which may make it easier to complete the relevant sections of your IRB form.

Many students become confused when asked to communicate their data collection plan, alignment of research questions, data sources, data analysis, and risks and benefits of participation in the study. These components can be found in the data collection procedures, data analysis, and ethical considerations sections of the methodology chapter. If any ambiguities exist in these sections, consult with your dissertation chair to seek clarity and determine the best way to move forward.

Once you have reviewed this information, you should be sure to access and review all of the relevant forms for your school. If you have not already developed your informed consent forms, check with your institution’s IRB to get the appropriate forms—typically, your school will have a specific template that you should follow. Draft your forms; IRB will require you to submit these forms with your IRB submission. This is a terrific time to ask your dissertation chair any questions you have related to your IRB form.

Now that you have prepped, it's time to complete the IRB form! Be sure to append all supporting documentation with the form. Following submission of the form, the IRB will provide feedback requesting clarification and edits, where necessary. Be sure to fully address the feedback and pose questions to your dissertation chair or IRB reviewer, as appropriate, if you are confused.

Good luck!

Quantitative Results Template

Chapter 4: Results

Review briefly the purpose, research questions, and hypotheses. Preview the organization of Chapter 4. *Note*: This will be less than 1 page in length.

Pilot Study

Concisely report the results of the pilot study, if applicable. Otherwise, this section should not be included in the dissertation. This section should detail how many individuals participated in the pilot study, how pilot study participants were recruited, and what comprised their participation. You should report the pilot study participants' feedback and any changes you implemented to respond to the pilot study feedback. *Note*: This section should be about 1 page in length.

Data Collection

Describe the timeframe for data collection as well as actual recruitment and response rates. Present any discrepancies in data collection from the plan presented in Chapter 3. You may incorporate how representative the sample is of the population of interest or how proportional it is to the larger population if nonprobability sampling is used (external validity). This information should be provided as appropriate per the methodology. *Note*: This section should be at least 1 page in length.

Treatment and/or Intervention Fidelity

Only incorporate this section if you have implemented an intervention or treatment in your study. Describe whether the treatment was administered as planned and any challenges that prevented planned implementation, as described in Chapter 3. Describe any adverse events (those with serious consequences) related to the intervention. *Note*: This section may be 1–3 pages in length.

Preliminary Data Management

Begin this section with a description of the data management process. If appropriate, describe the process of importing your data into the software you will use for analysis. Describe the results of your screening for outliers, missing values, and accuracy. Tell the reader how many participants or data points are included in the final dataset.

Report descriptive statistics that appropriately characterize the sample. This section is generally broken down into a reporting of the frequencies and percentages for the categorical variables, and means and standard deviations for continuous variables. Provide results of basic univariate analyses that justify inclusion of covariates in the model, if applicable. *Note*: This section should be at least 1 page in length.

Reliability and Composite Scoring

Report composite scores and reliability analysis, if appropriate. Describe how composite scores were calculated, and present means and standard deviations for composite scores. Evaluate Cronbach's alpha for your composite scores. Report these values and assess how reliable the subscales are using George and Mallery's (2010) rules of thumb. *Note*: This section should be approximately 1 page in length.

Statistical Analysis

Report the results of the statistical analyses, organized by research question as appropriate. For each research question, you will evaluate statistical assumptions as appropriate, and provide information regarding whether the assumptions were met. Conduct any transformations or other data manipulations as indicated in the methodology chapter, as appropriate. Report statistical analysis findings, organized by research questions or hypotheses, including:

- Exact statistics and associated probability values.
- Confidence intervals around the statistics, as appropriate
- Effect sizes, as appropriate.

Report results of post-hoc analyses of statistical tests, if applicable. Report any additional statistical tests of hypotheses that emerged from the analysis of main hypotheses, as appropriate for the study.

Include tables and figures to illustrate results, as appropriate, and per the current edition of the *Publication Manual of the American Psychological Association*. *Note*: This section varies in length.

Summary

Summarize answers to the research questions. Provide transitional material from the findings and introduce the reader to the prescriptive material in Chapter 5. *Note*: This section should be about a page in length.

Qualitative Results Template

Chapter 4: Results

Review briefly the purpose, research questions, and hypotheses. Preview the organization of Chapter 4. *Note*: This will be less than 1 page in length.

Pilot Study

Concisely report the results of the pilot study, if applicable. Otherwise, this section should not be included in the dissertation. This section should detail how many individuals participated in the pilot study, how pilot study participants were recruited, and what comprised their participation. You should report the pilot study participants' feedback and any changes you implemented to respond to the pilot study feedback. *Note*: This section should be about 1 page in length.

Data Collection

Describe the timeframe for data collection as well as actual recruitment and response rates. Present any discrepancies in data collection from the plan presented in Chapter 3. Be sure to report any deviations from the planned data collection as they relate to securing participants, conducting interviews, gathering data or documents, or any special requests from participants (e.g., you planned to conduct focus groups for your data collection, however one participant requested that you collect data from his or her via interview instead; you would report this in the data collection section). *Note*: This section should be at least 1 page in length.

Treatment and/or Intervention Fidelity

Only incorporate this section if you have implemented an intervention or treatment in your study. Describe whether the treatment was administered as planned and any challenges that prevented planned implementation as described in Chapter 3. Describe any adverse events (those with serious consequences) related to the intervention. *Note*: This section may be 1–3 pages in length.

Data Analysis

Begin this section with a description of the data management process. If appropriate, describe the process of importing your data into the software you will use for analysis. Tell the reader how many participants are included in the sample.

Explain the process of data analysis. This reporting should detail the actual steps that were conducted to analyze the data, in alignment with the chosen data analysis approach (e.g., modified van Kaam, Braun & Clarke, etc.). Describe the process of analysis from data review (e.g., reading transcripts) to coding and how themes and the final report were developed from the codes. *Note*: This section may be 1–3 pages in length.

Demographics

Report any demographic information that describes the sample. Include a table as appropriate presenting the demographic information. *Note*: This section should be at least 1 page in length.

Results

Report the results of the data analysis, organized by research question, as appropriate. Provide a preview of what themes are included under each research question and how they relate to the research question. For each research question, you will report the themes that were found relating to the question and include supporting quotes from participants. Include figures to illustrate results, as appropriate, and per the current edition of the *Publication Manual of the American Psychological Association*. *Note*: This section varies in length.

Summary

Summarize answers to the research questions. Provide transitional material from the findings and introduce the reader to the prescriptive material in Chapter 5. *Note*: This section should be about a page in length.

Discussion Template

Chapter 5: Discussion, Conclusions, and Recommendations

Think of this chapter as a bookend to Chapter 1. Summarize the problem and purpose with similar language to what you used in the introduction of Chapter 1. This introduction to the chapter should be less than 1 page in length.

Summary of the Findings

This is where you will summarize the findings in your own words. You may find it useful to revisit the summaries presented in Chapter 4. Think of how you would describe your study findings to an interested colleague or family member. Keep the writing scholarly, but not overly technical or statistically heavy. *Note*: The length of this section varies depending on the study and design.

Interpretation of Findings

Describe in what ways findings confirm, refute, or extend knowledge in the discipline by comparing them to the literature featured in Chapter 2. Please note, you may **not** introduce new literature in Chapter 4 or 5. Analyze and interpret the findings in the context of the framework as appropriate. Ensure interpretations do not exceed the data, findings, and scope. Anything that you feel is important to note that is beyond the data and findings can be included in the recommendations section. *Note*: This section should be 3–7 pages in length.

Limitations of the Study

This section is similar to what appears in earlier chapters; however, it is from a different angle. Describe the limitations to generalizability, trustworthiness, validity, and reliability that arose from execution of the study. There may be many, or there may be few limitations in this regard. These particular assumptions should be used to revise what was written in Chapter 1 for the proposal if your school's template outlines this. *Note*: This section should be about 1 page in length.

Recommendations

Describe recommendations for further research that are grounded in the strengths and limitations of the current study as well as the literature reviewed in Chapter 2. This is where you can bring a bit of yourself into the dissertation. Think of ways that, in hindsight, you may have approached the study to elicit different results. Ensure recommendations do not exceed study or ethical boundaries. *Note*: This section should be 2–4 pages in length.

Conclusions

Close with a strong "take away" message where you capture the key essence of the study for your reader. *Note*: This section should be less than 1 page in length.

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