CHAPTER

1

Overview of the Master's Degree and Thesis

As it has for more than two centuries, progress will come in fits and starts. It's not always a straight line. It's not always a smooth path.

—Barack Obama

If you are reading this page, congratulations! This signifies that you have already successfully completed a bachelor's degree in your field, a major accomplishment. Now you are ready to embark on the next phase of your educational journey: completing a master's degree. Why congratulations and not condolences? Because whether or not the master's degree is the highest professional degree in your field or a gateway to doctoral studies, completing the degree will open many doors for you, both personally and professionally; it is up to you to find them and walk through.

The Master's Degree

There are a vast number of types of master's degrees in a variety of disciplines and specialty areas. The two main types of academic degrees at the master's level are the Master of Arts and the Master of Science. The **Master of Arts (MA)** degree is typically awarded in the disciplines of arts, sciences, social sciences (e.g., education, psychology), and humanities (e.g., history, philosophy, religion). The **Master of Science (MS)** degree is typically awarded to students in technical fields such as engineering, nursing, mathematics, and health care management but can also be in the social sciences.

In some fields, the **master's degree** is referred to as a *professional degree* or *terminal degree*. A **terminal degree** is the generally accepted highest academic degree in a field of study. For the purposes of this book, no distinction is made between the MA, MS, or professional degrees, because all are referred to as the *master's degree*.

A **master's degree program** is a graduate-level, postbaccalaureate program in a specific field or discipline that typically involves a culminating activity, project, exam, or thesis. Depending on the discipline and the institution, there may be several pathways to obtain the master's degree. In some cases, students may take a certain number of units through coursework and complete a fieldwork project at the end of their studies. For example, graduate students may submit a project related to a particular topic such as a curriculum unit, a handbook or manual, or a visual arts performance. In other cases, students may take courses and pass a comprehensive oral or written exam at the end of their studies. In still other cases, the degree may require coursework and a research study. There may be a combination of the options mentioned involving coursework, an exam, and a final project or study. Although each discipline has its own specific requirements for the master's degree, they all share a commonality of having a cumulative experience or final activity to show that students have "mastered" the necessary content. Thus, before you proceed in your studies, it is best to find out the requirements for the master's degree within your own discipline, field, and institution of higher education.

In addition to many tangible benefits, a major benefit of obtaining the master's degree is the amount of personal satisfaction that it brings. I always

tell my students (especially when they are on the verge of giving up), "Yes, it is a tremendous amount of work; yes, I know you have not seen your partner in a week; and yes, I understand the dog is angry at you. However, when you are done and you have completed your master's degree, no one can take that away from you." This usually keeps them going for about a week. The point is although it will seem like a long (and virtually endless) journey, and it will not always be easy to see the finish line, once you complete your culminating experience, a unique sensation will overcome you (unrelated to the fatigue). This sensation comes from knowing that despite the adversity and hurdles, you have accomplished your own personal goal, acquired by only a small proportion of the general population.

What Is a Master's Thesis?

For the purposes of this book, I only address the master's thesis option. The **master's thesis** is an empirically based research study that is an original piece of work by the graduate student. An **empirically based** research study is based on data that are produced by experiment or observation (rather than opinion). The thesis must be an original piece of work because it represents the student's culminating research and writing abilities. Thus, this book focuses on the research process and a traditional five-chapter thesis rather than an artistic performance or production. Completing a thesis demonstrates your ability to conduct original research, review the existing literature, collect data, analyze the data, report the results, discuss conclusions, and draw implications from your research findings. Moreover, the completion of a thesis represents your perseverance, discipline, and scholarly writing. Just like there is more than one way to skin a catfish, each discipline has slightly different specifications and requirements for the thesis. Some institutions may also require that there is a final presentation of the study. It is important for you to find out what the requirements are for the components, format, and process for completing the thesis. Usually the graduate division, college, school, or department will offer these guidelines.

If you are preparing to write your master's thesis, most likely you are at the end or toward the end of your master's degree program. Although master's degree programs are not typically designed to teach students how to write a thesis, the course of study and experiences from the program benefit you greatly as you go through the research and writing process for the thesis. First, the master's thesis process provides you with multiple opportunities to learn the critical core content in your field or discipline. This content knowledge will help you as you select an appropriate topic to study—one that is both relevant and significant to your field—and frame your research interests. Next, most master's degree programs require students to take a research methods course. The thesis experience will

help you research the literature, analyze and synthesize research articles, develop answerable research questions, and create a rigorous, yet feasible, design for your study. Thus, throughout the thesis writing process, you will be constantly relying on the content knowledge and experiences that you gained from the master's degree program to demonstrate you have "mastered" the content and associated research skills in your field or discipline.

The Benefits of Writing a Master's Thesis

As mentioned earlier, there are many options to obtaining the master's degree—with the thesis as one of them, perhaps the most challenging and time-consuming. You are probably thinking, then, "Why on earth am I choosing this option?" Besides the feeling of euphoria that will wash over you when you copy and bind your final draft, there are some tangible benefits of choosing a thesis that make it a worthwhile choice.

First, completing a master's thesis can inspire you to continue study within your discipline. Conducting academic research or pursuing an academic career is not for the weak of heart. The thesis can help prepare you for the next level of research practice within your discipline and/or candidacy for a doctoral program. Not only will you have evidence of research potential (and practice in conducting research), you will have the opportunity to discern early if an academic career is a good fit before committing to pursue further degrees.

Second, the thesis writing experience provides a rare opportunity for mentorship and guidance with a faculty member, an expert in your discipline area. During this process you will meet and work individually with a faculty thesis advisor and committee members who will give you detailed advice and push you to a higher level of thinking and writing. The faculty thesis advisor can also be a great reference for future jobs, internships, or the next graduate-school application. To this day, I still maintain a close relationship with my former thesis students, and they know they can always come to me for support.

Finally, the skills you acquire in writing a thesis will benefit you in any career you choose. For example, you will learn how to pose a problem, present data to support an argument, organize your thinking, communicate through scholarly writing, manage a large project and your time effectively, and receive constructive feedback. All these skills will enhance your performance in any chosen career path.

The Difference Between a Master's Thesis and a Term Paper

One of the biggest hurdles for students when writing the master's thesis is adjusting from the writing style of a term or research paper format,

a common expectation at the undergraduate level. There is a qualitative (and often quantitative) difference between the master's thesis and a term paper. As mentioned, the master's thesis is based on original research on a particular topic conducted by the student. In comparison, the term paper is a major written assignment about a particular topic (representative of a student's achievement during a term) (https://www.merriam-webster.com/dictionary/term paper). In the term paper, there may be a subject or question that will be answered using examples from books, journals, articles from newspapers, and so on, to support the findings. However, the student is not conducting a research study to answer a research question. For example, a term paper may consist of presenting the argument that the use of social media technologies (e.g., blogs, social networks) has actually decreased rather than increased the quality of relationships within society. The student would cite research and other sources to persuade the reader and support his argument. For a master's thesis, on the other hand, the student would conduct a full literature review on the topic and then develop a research question. Then he would collect data, perhaps administering a survey to 200 people at random to find out their perspectives about their social media usage and the quality of their social relationships. Finally, he would analyze the data, report the results, and discuss the conclusions and implications of his findings (based on the data that were collected).

The Difference Between a Master's Thesis and a Doctoral Dissertation

In some cases, you will hear the word "*thesis*" used to refer to both master's and doctoral degrees. More commonly, universities use the term ***thesis*** to refer to the requirement for a master's and a dissertation for the doctorate. A **dissertation** is typically the culminating requirement for a doctoral degree. The difference between the thesis and the dissertation depends on your particular discipline, specialty area, and institution. In many instances, there are more similarities than differences between the two, especially when considering the "traditional" research form of a master's thesis. For example, both the thesis and dissertation studies should follow a *systematic* process where there is a researchable problem, literature to support and contextualize the problem, data collection methods (e.g., sampling, measurement instruments), analysis of the data, and discussions and conclusions based on the results of the study.

However, at every step of the process, the dissertation may require the student researcher to go into more depth or breadth. For example, the dissertation usually includes a theoretical rationale or conceptual framework that relates to the problem. Sometimes the purpose of the dissertation could be to develop or to refine an existing theory. This is not commonly

required for a master's thesis. The dissertation may also require a larger sample size or complicated sampling plan, more measurement instruments, and complex statistical or rich qualitative analysis of the data. Thus, the length of the dissertation study (both in time spent collecting data and page numbers) may be significantly greater than that of the master's thesis.

Another distinction between the dissertation and the master's thesis is the number of people involved in the process. For the dissertation, most institutions require that the doctoral student form a committee with a chairperson and two, three, or sometimes four other faculty members who serve as readers. Students have to "defend" their dissertation proposal to the committee members before they are allowed to proceed with the study, with a final defense after they have completed the study. For the master's thesis, it is more common for the student to work with her assigned faculty chairperson and one other faculty member throughout the process.

Finally, another important distinction between the two is the focus or purpose of the study. The master's thesis may have a narrow practical focus, whereas the dissertation may have a broader and more theoretical focus. Although both have practical implications, the master's thesis may be more directly related to a present or immediate problem. Thus, one way to differentiate between the two is to think of the dissertation as a more complex and sophisticated master's thesis. In fact, when I advise students on their master's theses, I am constantly reminding them that this is to prepare them for their doctoral dissertation!

Selecting a Thesis Chairperson and Committee

One of the most important parts of the thesis process is selecting a chairperson and committee member(s). A critical benefit going through a master's degree program is getting to know the different faculty in your program or department. By this time, you will have a better sense of which faculty would be the most compatible in terms of working style and research interests to select as your chairperson. The **chairperson** is the faculty member who is assigned to or selected by the graduate student to advise him throughout the master's thesis process. Keep in mind that your chairperson may be different from your faculty adviser or the department chairperson. At some institutions, the program selects the chairperson for you, while in others you can select the chairperson as well as the other members of your committee. Typically, there are two faculty members on your master's thesis committee: the chairperson and one committee member. However, it is best to check with your institution because this number can vary from two to five members. Most commonly, it is required that the chairperson be

a faculty member within the degree program, while the committee members could be faculty from within or outside the program and department. Again, it is a good idea to check with your institution regarding the specific criteria for the selection process.

If you are allowed to pick your own chairperson, there are a few things to keep in mind. First, your chairperson is not the coauthor of the master's thesis. In other words, she will not be writing the thesis *with* you (or *for* you). Rather, the role of your chairperson is to guide and direct your study. This does not include writing, editing, conducting research, or collecting and analyzing data. The chairperson will assume that you have all the necessary skills to complete the thesis—she will help facilitate the process. One factor to consider when selecting a chairperson is her area of *expertise*. Having a chairperson who is familiar with the topic of your thesis is helpful because she can offer suggestions on critical research literature. The chairperson may also have expertise in a particular research design that you want to use in the study. Another factor to consider when selecting a chairperson is *fit*. Here, you should evaluate whether or not you could have a positive working relationship with the faculty member. Keep in mind that you are not trying to make a new friend, but you do want someone who will offer insight and constructive feedback on your work. Finally, make sure to consider whether or not the faculty member is *accessible*. The role of the chairperson is time-consuming (especially when it comes to the giving feedback part), so do not pick a person who is already overwhelmed with her other responsibilities.

Once you have selected a chairperson, set up an initial meeting to discuss how you will work together. Each chairperson will vary on how she will want to work with graduate students, so it is critical for you to know and follow her expectations. See the *Resources* section at the end of this chapter for a list of possible questions to ask at your initial meeting. These questions will help you and your chairperson get off to a great start with a mutual understanding of your working relationship.

How to Read and Use This Book

The intent of this book is to give you a blueprint of the research process as well as to provide you with step-by-step guidance on how to write the actual thesis, one chapter at a time. This is not a *New York Times* best-selling novel, so unless you are an insomniac like me, there is really no need to read the book from front to back cover in one sitting. Rather, it might be helpful to read the book as you would a reference book—skimming the entire book and then probing deeper into specific chapters as you need more detailed information. As noted with the beginning quote, everyone's

writing process will differ. While the book is written in a linear fashion for organizational purposes (and because I'm a pretty linear person), some of you may want to start with writing Chapter 2, and then go back to write Chapter 1. Others may want to start with writing Chapter 3 and so on. This is really a matter of personal choice (and that of your advisor). Clearly the only chapters you cannot start with are Chapters 4 and 5! The key point is that you start and keep reading and writing; use the book as a reference guide to keep your progress and momentum going forward.

Keep in mind that this book is not written as a research methods book (and should not replace one) that teaches in depth how to conduct different research designs and data analysis methods. While I cover these topics briefly, I highly recommend that you supplement this book with actual research methods books (and courses) that fit your selected design. There are many excellent research methods texts available, and there are some suggested throughout this book. Your faculty advisor will also know which research methods books to recommend.

At the end of each chapter there are also additional resources: common obstacles and practical solutions, reflection/discussion questions, try it exercises, key terms, suggested readings, and web links. The resources are a compilation of helpful advice, suggestions, and activities I have used with my former masters students. The resources give you a chance to practice and apply the content that is covered in each chapter and get feedback to make sure you're on track. I find that it always helps to think out loud some of the ideas (with a colleague or your faculty advisor) before you have to commit them to paper.

Components of a Master's Thesis

For the purposes of this book, the master's thesis structure will consist of five distinct chapters. Each chapter has a specific focus and objective. The titles of the five chapters are (a) Introduction, (b) Literature Review, (c) Methods, (d) Results or Findings, and (e) Discussion. The structure of the five chapters is the same whether you are conducting a qualitative, quantitative, or mixed methods research study (although some of the subsections may be different). Each chapter is described briefly here. There is a more comprehensive discussion of how to write each chapter of the thesis in Chapters 5 through 9. To avoid confusion, I refer to chapters of this book with numbers (e.g., Chapter 1, Chapter 2) and chapters of the master's thesis with their word forms (e.g., Chapter One, Chapter Two). Keep in mind that your school or program may use a different chapter format for the thesis or use other terms, such as "sections," to refer to the different components of the master's thesis.

Chapter One, Introduction

Chapter One introduces the topic of the thesis to the reader. The critical part of writing Chapter One is to establish the statement of the problem and research questions. Basically, you are justifying to the reader *why* it is necessary to study this topic and *what* research question(s) your study will answer. Usually, the topic is based on a particular problem area you want to focus on (I discuss how to select an appropriate topic in Chapter 2). For example, if your master's degree is in social work, your topic of interest may be homeless single women with children, and the specific problem may be that these mothers are not able to find jobs because they lack appropriate child care or educational services for their children due to their frequent transitions. However, before you introduce the reader to the specific topic and problem, you have to first provide the reader with the broader context (the general problem) and consequences related to the topic. In other words, before you discuss the specific problem, you need to contextualize your topic within the larger problem. For example, you would first discuss the problems related to homeless families with children in general and use national or state data and statistics to support your claims. This part would include the consequences related to the social and emotional effects on the mothers and their children.

Chapter One of the thesis includes a section on the *Statement of the Problem* (information about the specific problem), *Background and Need* (the background literature related to the problem and gaps that still remain), the *Purpose of the Study* (the focus and goal of the study), *Research Questions* (what questions the study proposes to answer), and other significant sections. In this chapter, you need to support all your claims and positions using citations from empirical research studies, government reports and data, websites, and theory and opinion papers. How to write Chapter One and its major sections is discussed in great detail in Chapter 5.

Chapter Two, Literature Review

Chapter Two introduces the reader to the research literature related to the topic. The critical part of writing Chapter Two is to identify the most relevant and significant research related to your topic rather than to conduct an exhaustive search. Basically, you are informing the reader of the *critical* studies that have been conducted related to this topic. This provides the reader with the background information that she needs to understand the problem(s) related to your topic. The literature review also provides the justification for your study as you indicate the gaps and weaknesses in the existing research. Chapter Two provides credibility to your study because it shows you have done your "homework" in reading the research for this topic and your study is "grounded" in the research. In other words,

your thesis did not simply appear from thin air; instead, it was developed because there was a need to conduct the study, and it will contribute to the body of research related to this problem.

To organize Chapter Two, you first start with an introduction about the general problem and your topic. Then you provide an advance organizer, which indicates what will be covered in the literature review. For the purposes of this book, you will cover three areas that are related to your problem. The **advance organizer** explicitly states the three areas of research that are addressed and the order of the discussions. This helps structure the literature review and manage the research articles that you find. For example, in the social work example, three areas related to the problem could be (a) homelessness and its effect on children's development, (b) quality of parental interactions between homeless mothers and their children, and (c) collaboration of school and social agencies. Where did these areas come from? Do not worry; the three related areas will emerge as you read the existing literature and develop the *Statement of the Problem* and the *Background and Need* sections in Chapter One and the literature review in Chapter Two.

After you have introduced the three related areas, you will locate and synthesize three to four research articles (with empirical data) for each of the three areas related to the topic. Each section should start with a brief introduction about the area and end with a summary paragraph to recap the main points and limitations within the area. At the end of the literature review, there should also be a summary that ties together all the literature related to the topic. How to write Chapter Two and the three major sections are discussed in great detail in Chapter 6.

Chapter Three, Methods

Chapter Three explains the research methods and design that were used to conduct the study. The critical part of writing Chapter Three is to describe the actual procedures that were used to conduct the study. Basically, you are informing the reader of *how* the study was conducted. Thus, you need to include detailed descriptions about every aspect of your study. Chapter Three will include the following components: (a) *Setting* (where the study took place), (b) *Participants* (the individuals who participated in the study and how they were selected), (c) *Instructional* or *Intervention Materials* (any materials or instructional strategies that were used to conduct the study), (d) *Measurement Instruments* (the tools you used to collect data), (e) *Procedures* (how you collected the data and/or implemented the study), and (f) *Data Analysis* (the statistical, qualitative, or mixed methods techniques that were used to analyze the data). Enough detail should be included so that another researcher could replicate your study (for a quantitative study). How to write Chapter Three and the major sections are discussed in great detail in Chapter 7.

Chapter Four, Results and Findings

Chapter Four reports the results or findings of the study. The critical part of writing Chapter Four is to present the results or findings from the data collection and data analysis process in Chapter Three. Basically, you are informing the reader of *what* was discovered. This chapter integrates a narrative, numerical, or tabular presentation of the outcomes of the study, depending on whether you have conducted a qualitative, quantitative, or mixed methods study. In Chapter Four, you report the results or findings from the data analysis for each variable, participant, and measurement instrument that was discussed in Chapter Three. For example, if you conducted a qualitative study, you would provide a narrative description of the findings in relation to the research questions. If you conducted a quantitative study, you could include descriptive statistics for each participant or for the entire group (or both). Descriptive statistics are the basic level of statistical analysis for a data set from a sample group. Typically, reported statistics include the mean, median, mode, variance, and standard deviation. If you conducted an intervention for a large group or more than one group of participants in the study who received different treatments, you could apply inferential statistics to indicate any differences observed in performance before and after the intervention or between the two groups (if appropriate). Inferential statistics is the higher level of statistical analysis where inferences are made from a sample to a population. Inferential statistics may also include hypothesis testing and set probability levels to test for statistically significant differences between groups (or treatments). How to write Chapter Four and the major sections are discussed in great detail in Chapter 8. For the purposes of this book, quantitative, qualitative, and mixed methods are discussed separately in Chapter 7 (Methods) and Chapter 8 (Results and Findings) since these are the main areas where the distinction between the three methods is the greatest.

Chapter Five, Discussion

The last chapter in the thesis, Chapter Five, discusses the results from Chapter Four and draws conclusions about the study's results or findings. The critical part of writing Chapter Five is to discuss the significant results or findings in relation to the statement of the problem and the research questions that were identified in Chapter One. The discussion section includes the researcher's interpretation of the results or findings. You may also discuss the relationship of your study's results or findings to previous research conducted in the literature. In addition, Chapter Five includes a section on *Limitations.* This section discusses the limitations or weaknesses of the study's design or findings. Another section in Chapter Five is the *Recommendations for Future Research.* In this section, you make recommendations for future areas of research that should be conducted

related to your study (e.g., follow-up). Additional recommendations could include those for actions, policies, or procedures. Finally, the last section of Chapter Five is the *Conclusions*. In this section, you identify the critical conclusions about the results (e.g., lessons learned) and their implications. How to write Chapter Five and the major sections are discussed in great detail in Chapter 9.

Quantitative, Qualitative, or Mixed Methods Research?

Thus far, I have briefly mentioned quantitative, qualitative, and mixed methods research, assuming you know the difference between the three types. Because you are reading this book, it is likely that you have taken or are currently taking a course in research methods, so I do not go into too much detail about the different research approaches and designs. However, since the type of study you conduct, whether quantitative, qualitative, or mixed methods, informs the writing of the five-chapter thesis, I briefly distinguish the broad approaches and give examples of possible topics from different disciplines. Although quantitative and qualitative approaches will be described separately, it is important to keep in mind that these approaches fall on a continuum rather than on polar opposites (Newman & Benz, 1998). Neither method is considered better or more important than the other, and they each have their strengths and weaknesses and advantages and disadvantages. What drives a researcher to conduct either a quantitative, qualitative, or mixed methods study is not so much a match to the personality of the researcher (although this is important) but rather the research question(s) that need(s) to be answered. In addition to the type of study a researcher chooses to conduct, she must also select a specific research design within quantitative, qualitative, or mixed methods studies. Research designs are types of inquiry or "strategies of inquiry" (Denzin & Lincoln, 2011). A few examples within each type of study are offered below.

Quantitative Research

In a **quantitative research** study, the emphasis is on **numerical data** (i.e., numbers) that can be collected using objective measures and analyzed with statistics (descriptive or inferential). The results from the data analysis (of the sample group) are then used to generalize findings across groups of people or to explain a particular phenomenon (Babbie, 2016; Mujis, 2010). Some of the more common quantitative research designs include experimental (e.g., true experiments, quasi-experiments, single-subject design) and nonexperimental (e.g., causal-comparative, correlational, survey) (Creswell & Creswell, 2018; Mills & Gay, 2019).

In quantitative experimental studies, the researcher can measure the outcome of cause-effect scenarios with single or multiple independent variables. The **independent variable** is the variable that is deliberately manipulated (e.g., cause) by the researcher to produce a change in the dependent variable. The **dependent variable** is the variable that is observed to see if there is a change (e.g., effect) in response to the independent variable. The researcher cannot manipulate the dependent variable. In quantitative research, **deductive reasoning** is often used, which is moving from the general to the specific. Typically, a quantitative researcher has a set hypothesis (prior to conducting the study) based on a theory that he tests to support or not support the given **hypothesis**. In quantitative studies, a hypothesis involves making assumptions or predictions based on probability distributions or likelihoods of events.

In quantitative nonexperimental studies such as correlational designs, the researcher is trying to measure the degree of association or the relationship between two or more variables or sets of scores. Survey research provides a description of trends, attitudes, behaviors, and opinions of a population based on a representative subset (i.e., sample) of the population.

Data are often collected with one or several measurement instruments. **Measurement instruments** are data collection tools (e.g., surveys, observations, tests) that are used to measure changes in dependent variables or variables of interest. The data are recorded in numerical format such as a percentage score, grade point average, mean score, or rating. After the data are analyzed, the hypothesis is either confirmed or unsupported. Quantitative studies typically have large sample sizes and can also have multiple groups within the sample. In addition, the researcher may have limited direct interactions with the participants in the study. Once the data are collected, descriptive or inferential statistics are applied to analyze the data. Some of the strengths of quantitative methods are that the researcher has control over many aspects of the study and, given a large sample size, the results of the study can be generalized to a broad population.

Quantitative studies can be conducted in many different disciplines and topics, again depending on the research question(s). For example, in counseling, a study could be conducted on the effects of parents' divorce on children's social and emotional behavior for 4-year-olds at one preschool. In criminology, a study could be conducted surveying adolescents whose parents are incarcerated to assess their attitudes and perceptions toward law enforcement. In organization and business management, a study could be conducted on the relationship between employees' use of self-care strategies to mediate stress (e.g., exercise, yoga, meditation, acupuncture) and their level of productivity. In social work, a study could be conducted on the effects of having aging parents on sibling relations within Asian American families. Finally, in education, a study could be conducted on differences in math scores between female and male high

school students in coed or same-sex classrooms. As you can see from the examples mentioned, there is no limit to the topics and studies across the disciplines that can be conducted using quantitative methods. Notice that all the mentioned potential studies would require numerical data collection using surveys, tests, or observation checklists.

Qualitative Research

A **qualitative research study** delves into a particular situation to better understand a phenomenon within its natural context and the perspectives of the participants involved (Mills & Gay, 2019). In general, qualitative researchers attempt to explore, describe, and interpret human behavior based primarily on nonnumerical data (e.g., words).

Studies that use qualitative approaches collect nonnumerical data to answer the research question(s). **Nonnumerical data** are narrative data (i.e., words). There are many different kinds of qualitative research designs. Some commonly found approaches in the social and health sciences literature are narrative research, phenomenology, grounded theory, ethnography, and case study (Creswell & Poth, 2018). Unlike quantitative researchers, qualitative researchers do not start their study with a hypothesis that they set out to find support for or to test. In qualitative research, **inductive reasoning** is often used, which is moving from the specific to the general. A qualitative researcher starts with specific situations, finds patterns or themes in the data, establishes a tentative hypothesis, and then develops theories or conclusions. Data are often collected through extensive and detailed field notes, observations, interviews, and focus groups with the participants in a natural setting (i.e., the researcher does not control or manipulate the environment). Qualitative studies typically have small sample sizes, which allow the researcher the time and opportunity to have extensive interactions with the participants. Once the data are gathered, they are coded, analyzed, and organized or categorized according to the themes and patterns that emerge. This provides the researcher with findings in a narrative format. Some of the strengths of qualitative methods are that the researcher (a) has investigated a topic in depth; (b) has interpreted the outcomes based on the participants', not the researcher's, perspectives; and (c) has created a holistic picture of the situation.

Qualitative studies can be conducted in many different disciplines and topics. For example, in counseling, a study could be conducted on the perceptions of single-parent Latinas on using mental health services. In criminology, a study could be conducted on how incarcerated teenage mothers cope with raising their children in juvenile detention centers. In organization and business management, a researcher might be interested in how

volunteerism affects employee motivation and satisfaction at a nonprofit organization. In social work, a study could be conducted on the factors that promote resiliency within domestic violence victims. Finally, in education, a researcher could conduct an ethnographic study on the experience of first-generation African American college students. As you can see from the examples mentioned, there are certain topics that require using qualitative methods such as interviews and observations to answer the research question(s).

Mixed Methods Research

A third type of study, mixed methods research, resides in the middle of the continuum of qualitative and quantitative approaches because it incorporates elements of both. The **mixed methods research** study has gained in usage and popularity over the past few decades. "In mixed methods, the researcher collects and analyzes both qualitative and quantitative data rigorously in response to research questions and hypotheses, integrates (or mixes or combines) the two forms of data and their results, organizes these procedures into specific research designs that provide the logic and procedures for conducting the study, and frames these procedures within theory and philosophy." (Creswell & Plano Clark, 2018, p. 5)

Three core mixed methods designs are convergent design, explanatory sequential design, and the exploratory sequential design (Creswell & Plano Clark, 2018). The different designs illustrate the phases of data collection and interpretation with subsequent results building on each other or offering further explanation. In the convergent design, the researcher typically collects both forms (QUAN+QUAL) of data at the same time and then integrates the information for data analysis and interpretation. In the explanatory sequential design, the first phase is quantitative and the researcher analyzes the numerical data; the second phase involves qualitative research (QUAN→qual). In the exploratory sequential design, the order of phases is reversed with the first phase as qualitative research and the quantitative research as the second phase (QUAL→quan). While it may appear that the researcher is simply "adding" phases of research together, there is actually an integration of information that should occur to create new knowledge greater than the sum of the parts such that 1 + 1 = 3 (Fetters & Freshwater, 2015).

Researchers can conduct mixed methods studies in all disciplines when they find that in answering their research question, one data source may be insufficient. In some ways, mixed methods research is a researcher's dream—you are not restricted to certain types of quantitative or qualitative data collection tools, and you can provide more evidence

to study the research question(s) in depth. However, keep in mind that mixed methods research does require extensive research skills and also the time and resources to conduct the multiple phases of data collection and data analysis.

Style Form

In addition to selecting a research type and design, you also need to adhere to a style form. All scholarly writing such as books, journal articles, reference materials, dissertations, and theses must comply with a style form. Style form refers to both writing style and editorial style. The **editorial style** is a set of rules or guidelines that writers must adhere to for publishing manuscripts, books, and so on. Some of the critical elements include how to format headings, citations, references, tables, figures, and so forth. The style form developed by the **American Psychological Association** (referred to as *APA style*) was selected for this book and the master's thesis because it is commonly used in various social science disciplines such as education, psychology, sociology, business, economics, nursing, and social work. Specifically, I follow the sixth edition of the *Publication Manual of the American Psychological Association* (VandenBos, 2010). The APA manual is a reference book that has the rules and guidelines for the APA writing and editorial style. As new issues arise, the manuals are revised or updated on the APA website (http://www.apastyle.org), so make sure that you are following the most current edition. The APA style is widely accepted in the behavioral and social sciences, but the particular style form varies by discipline or academic departments. Other common references include the *Chicago Manual of Style* (17th edition, 2017) from the University of Chicago Press and the *Modern Language Association* (MLA) (8th edition, 2016), which is widely used in the humanities. Check with your chairperson for the one that applies to your thesis.

The thesis must be written in a format that complies with a style form, so it is always helpful to be familiar with the style form as you begin to write. However, the style form is not a research method. Rather, it is a tool to use in communicating your thesis. In this book, Chapter 10 is devoted to helping you comply with the APA style. The placement of the chapter late in the book does not diminish its importance. If you have used the APA style for previous papers or are familiar with the style form, this chapter will be a review for you. If you have not used the APA style before, I recommend referring to Chapter 10 as you proceed through the data collection and writing process for each chapter.

SUMMARY

Congratulations on getting through the first chapter of the book (only nine more to go)! You should now have a sense of the overall thesis and feel energized, empowered, and ready to embark on this educational adventure. Thank you for allowing me to be your tour guide. In the next chapter, I discuss how to select a research topic and questions. I wish you all the best of luck and will lead you to the finish line (and pull you through if I have to)! Here is a summary of the most critical points from Chapter 1:

- The master's degree is a postbaccalaureate degree conferred by a college or university on candidates who complete 1 to 2 years of graduate study.
- In some fields, the master's degree is referred to as a *professional degree* or *terminal degree*, meaning that the program or degree is the highest academic level for that profession rather than a gateway to the doctoral degree.
- The master's thesis provides you with multiple opportunities to learn the critical core content in your field or discipline and research methods.
- For the purposes of this book, the master's thesis is an empirically based research study written in five distinct chapters.
- Chapter One introduces the topic of the thesis to the reader and establishes the statement of the problem and research questions.
- Chapter Two introduces the reader to the research literature related to the topic and identifies the most relevant and significant research.
- Chapter Three explains the research methods and design that were used to conduct the study and describes the actual procedures.
- Chapter Four reports the results or findings of the study from the data collection and data analysis process in Chapter Three.
- Chapter Five discusses the results or findings from Chapter Four in relation to the statement of the problem and the research questions that are addressed in Chapter One and draws conclusions about the study's results or findings.
- What drives a researcher to conduct either a quantitative, qualitative, or mixed methods study is not a match to the personality of the researcher (although this is important) but rather the research question that needs to be answered.

RESOURCES

Common Obstacles and Practical Solutions

1. A common problem that students face at this stage is feeling overwhelmed with the magnitude of the thesis. Words that come to mind are, "What did I get into?" If you are feeling anxious because you have never conducted research or written something like a master's thesis, do not panic! This book (and your chairperson) will help divide the parts into manageable and feasible chunks and guide you through the entire process. However, it might be helpful for you to review the text and notes from any research methods course that you took.
2. Another common obstacle that students face at this stage is trying to decide between conducting a quantitative, qualitative, or mixed methods study. Instead of putting pressure on yourself to make that decision now, it is better to let the design emerge as you read the existing research and develop your research questions.

Reflection/Discussion Questions

Before you delve into the thesis, it is a good idea to take some time to make the "mental shift" from the type of conceptualizing and writing that was required in your undergraduate years and the type of conceptualizing and writing that is required for the master's thesis. In addition, now is a good time to think broadly about the issues and problems in your discipline and whether they would be amenable to quantitative, qualitative, or mixed methods research. The following reflection/discussion questions will help guide this process.

1. What are the similarities and differences between quantitative, qualitative, and mixed methods research?
2. Brainstorm and discuss critical research problems in your specific field or discipline. What would be the best approach(es) to address these research problems? Provide the pros and cons of selecting each type of research approach.

Try It Exercises

The following exercises (Activities One and Two) will help you identify potential faculty to serve as your chairperson and committee members as well as prepare for that first critical meeting with your chairperson. Activity Three is designed for you to research the professional and personal benefits of receiving a master's degree in your field or discipline. This knowledge will help keep you

motivated as you progress through the thesis knowing that when it is all done, you can reap the rewards!

1. Activity One: For this activity, focus on the faculty within and outside of your master's degree program.
    - Make a list of all the professors and/or instructors from whom you have taken a course.
    - Make a list of all the professors and/or instructors with whom you have worked on projects outside of coursework.
    - Review the professors' and/or instructors' curriculum vitae (usually available on the university website) and list the professors and/or instructors with whom you have common (research) interests.
    - Make a list of potential professors and/or instructors who could serve as your faculty chairperson and additional committee members.
    - Create an e-mail message that gives a general overview of your research interest(s) and ask one of these professors or instructors if she would be willing to serve as your master's thesis chairperson or committee member. Set up an initial meeting.
2. Activity Two: The first meeting with your chairperson is very critical. This meeting sets the tone for future meetings and also clarifies the expectations for the relationship between you and your chairperson.
    - Make a list of questions that you would ask at the initial meeting with your chairperson. Keep in mind that you may only have 30 minutes with your chairperson, so the questions should be succinct and related to your thesis. You should also be prepared to answer questions that your chairperson might have related to his expectations of you. The following is a list of possible questions that may be included in your list:
        1. How often should we meet—weekly, biweekly, as needed?
        2. Which days and when are the best times to meet—mornings, afternoons, evenings?
        3. What is the best way to contact you if I have to schedule or cancel an appointment?
        4. In which format should I present drafts—electronically by e-mail or with hard copy?
        5. What is the typical turnaround time to receive feedback for my drafts?
        6. What is the typical turnaround time you will want me to return the next draft?

7. What are some tasks I should be doing while waiting for feedback?
8. What resources are available on or off campus to help with writing, editing, and data analysis?

3. Activity Three: For this activity, focus on personal and professional benefits of receiving a master's degree in your field or discipline.
   - Imagine that you have completed your master's degree and have been asked to give the keynote address at your graduation. The department chair has asked you to conduct research in your field or discipline related to how the degree will enhance and/or further your career goals. You have to write a 5-minute speech that addresses the professional and personal benefits of receiving your master's degree (as well as thanking everyone who supported you along the way). Knowing *why* we want to do something can be just as important as how.

Key Terms

advance organizer 10
APA style 16
chairperson 6
deductive reasoning 13
dependent variable 13
dissertation 5
editorial style 16
empirically based 3
hypothesis 13
independent variable 13
inductive reasoning 14
Master of Arts (MA) 2
Master of Science (MS) 2
master's degree 2
master's degree program 2
master's thesis 3
measurement instruments 13
mixed methods research 15
nonnumerical data 14
numerical data 12
qualitative research 14
quantitative research 12
terminal degree 2

Suggested Readings

Creamer, E. G. (2017). *An introduction to fully integrated mixed methods research.* Thousand Oaks, CA: Sage.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design* (4th ed.). Thousand Oaks, CA: Sage.

Dane, F. C. (2018). *Evaluating research: Methodology for people who need to read research* (2nd ed.). Thousand Oaks, CA: Sage.

Drennan, J., & Clarke, M. (2009). Coursework master's programmes: The student's experience of research and research supervision. *Studies in Higher Education, 34*(5), 483–500. doi:10.1080/03075070802597150

Ercikan, K., & Roth, W. M. (2006). What good is polarizing research into qualitative and quantitative? *Educational Researcher, 35*(5), 14–23.

Fatima, N. (2009). Investment in graduate and professional degree education: Evidence of state workforce productivity. *Florida Journal of Educational Administration and Policy, 3*(1), 9–35.

Fletcher, K. M. (2005). The impact of receiving a master's degree in nonprofit management on graduates' professional lives. *Nonprofit and Voluntary Sector Quarterly, 34*(4), 433–447.

Labaree, D. F. (2003). The peculiar problems of preparing educational researchers. *Educational Researcher, 32*(4), 13–22.

Little, S. G., Akin-Little, A., & Lee, H. B. (2003). Education in statistics and research design in school psychology. *School Psychology International, 24*(4), 437–448.

Mills, G. E., & Gay, L. R. (2019). *Educational research: Competencies for analysis and applications* (12th ed.). Upper Saddle River, NJ: Pearson.

Modern Language Association. (2016). *MLA Handbook* (8th ed.). New York, NY: Author.

Morrow, S. L. (2007). Qualitative research in counseling psychology: Conceptual foundations. *Counseling Psychologist, 35*(2), 209–235.

Patenaude, A. L. (2004). No promises, but I'm willing to listen and tell what I hear: Conducting qualitative research among prison inmates and staff. *Prison Journal, 84*(4), 69S–91S.

University of Chicago Press. (2017). *The Chicago Manual of Style* (17th ed.). Chicago, IL: Author.

VandenBos, G. R. (Ed.). (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods, 6*(4), 465–481.

Web Links

APA Style

http://www.apastyle.org/

Glossary of Master's Degree Programs

https://study.com/article_directory/Glossary_of_Master's_Degree_Programs.html

Modern Language Association (MLA)
https://www.mla.org/

Modern Language Association (MLA) The Style Center
https://style.mla.org/

Purdue Online Writing Lab (Chicago Manual of Style 17th Edition)
https://owl.purdue.edu/owl/
research_and_citation/
chicago_manual_17th_edition/
cmos_formatting_and_style_guide/
chicago_manual_of_style_17th_edition.html

The Chicago Manual of Style Online
http://www.chicagomanualofstyle.org/home.html

The Princeton Review: Find Your Grad School
https://www.princetonreview.com/grad-school-search