The Research Process

There is the story of a Zen Buddhist who took a group of monks into the forest, whereupon the group soon lost their way. Presently one of the monks asked the leader where they were going. The wise man answered, “To the deepest, darkest part of the forest so that we can all find our way out together.” Doctoral research for the graduate student in the social sciences is often experienced in just that manner—trekking into a forest of impenetrable density and false turns. Over the years, our students have employed various metaphors to describe the dissertation process, metaphors that support the feeling of being lost in the wilderness. One student compared the process to the Sisyphean struggle of reaching the top of a hill, only to discover the presence of an even higher mountain behind it. Another student experienced the task as learning a Martian language, known to the natives who composed her committee but entirely foreign to her. A third student had perhaps the best description when she suggested that it was like waiting patiently in a seemingly interminable line to gain admission to a desirable event, then finally reaching the front only to be told to return to the rear of the line.

One reason that students become more exasperated than necessary on the dissertation journey is that they fail to understand the procedures and practices that form the foundation for contemporary social science research. Many students who are attracted to their field of interest out of an applied concern are apprehensive about making the leap from application to theory, which is an indispensable part of the research enterprise. What may not be so evident is that many of the skills that go into being
a consummate practitioner are the same skills that are demanded of a capable researcher. It is well known that curiosity and hypothesis testing are the bedrock of empirical research. In a similar fashion, experienced psychotherapists, to take an example from clinical psychology, are sensitive and keen observers of client behavior. They are persistent hypothesis testers. They are curious about the relationship between family history variables and current functioning. They draw on theory and experience to help select a particular intervention for a particular client problem or moment in therapy.

Dispassionate logic and clear and organized thinking are as necessary for effectiveness in the field as they are for success in research. In fact, the bridge between research and just plain living is much shorter than most people think. All of us gather data about the world around us, wonder what will happen if we or others behave in particular ways, and test our pet hunches through deliberate action. To a large extent, the formal research enterprise consists of thinking systematically about these same issues.

The procedures outlined in this book are intended to assist the doctoral student in planning and writing a research dissertation. The suggestions are equally applicable to writing a master’s thesis. There is considerable overlap between these two challenging activities. For most students, the master’s thesis is the first rigorous research project they attempt. This means that, in the absence of strong, supportive faculty consultation, the student often concludes the thesis with considerable relief and an awareness of how not to do the study the next time! With a doctoral dissertation, it is generally expected, sometimes as an act of faith, that the student will be a more seasoned and sophisticated researcher. The consensus opinion is that dissertations are generally longer than theses, that they are more original, and that they make a greater contribution to the field.

In most graduate programs, the prelude to conducting a dissertation study is presenting a dissertation proposal. A research proposal is an action plan that justifies and describes the proposed study. We take the completion of a comprehensive proposal as a very important step in the dissertation process. The proposal serves as a contract between the student and his or her dissertation or thesis committee that, when approved by all parties, constitutes an agreement that data may be collected and the study may be completed. As long as the student follows the steps outlined in the proposal, committee members should be discouraged from demanding significant changes to the study after the proposal has been approved. Naturally, it is not uncommon to expect
small changes, additions, or deletions down the road because one can never totally envision the unpredictable turns that studies can take.

There is no universally agreed-on format for the research proposal. To our way of thinking, a good proposal contains a review of the relevant literature, a statement of the problem and the associated hypotheses, and a clear delineation of the proposed method and plans for data analysis. In our experience, an approved proposal means that more than half of the work of the dissertation has been completed. This book is intended to help students construct research proposals as well as completed dissertations.

**The Research Wheel**

One way of thinking about the phases of the research process is with reference to the so-called research wheel (see Figure 1.1). The wheel metaphor suggests that research is not linear but a recursive cycle of steps that are repeated over time. The most common entry point is some form of empirical observation. In other words, the researcher selects a topic from the infinite array of possible topics. The next step is a process of inductive logic that culminates in a proposition. The inductive process serves to relate the specific topic to a broader context and begins with some hunches in the form “I wonder if...” These hunches typically are guided by the values, assumptions, and goals of the researcher that need to be explicated.

Stage 2 of the research wheel is a developed proposition, which is expressed as a statement of an established relationship (e.g., “the early bird is more likely than the late bird to catch the worm”). The proposition

![Figure 1.1 The research wheel](https://example.com/fig1_1.png)
exists within a conceptual or theoretical framework. It is the role of the researcher to clarify the relationship between a particular proposition and the broader context of theory and previous research. This is probably the most challenging and creative aspect of the dissertation process. A conceptual framework, which is simply a less-developed form of a theory, consists of statements that link abstract concepts (e.g., motivation, role) to empirical data. Theories and conceptual frameworks are developed to account for or describe abstract phenomena that occur under similar conditions. A theory is the language that allows researchers to move from observation to observation and make sense of similarities and differences. Without placing the study within such a context, the proposed study has a “so what?” quality. This is one of the main objections to the research proposals of novice researchers: The research question may be inherently interesting but ultimately meaningless. For instance, the question “Are there more women than men in graduate school today?” is totally banal as a research question unless the answer to the question has conceptual or theoretical implications that are developed within the study. A study may be worthwhile primarily for its practical implications (e.g., “Should we start recruiting more men into graduate schools?”), but a purely applied study may not be acceptable as a dissertation. Kerlinger and Lee (1999), authors of a highly respected text on research methodology, noted that “the basic purpose of scientific research is theory” (p. 5). Generally speaking, a research dissertation is expected to contribute to the scholarly literature in a field and not merely solve an applied problem. Thus, identifying a conceptual framework for a research study typically involves immersing oneself in the research and theoretical literature of the field.

Having stated our position with regard to the role of theory in dissertation research, it becomes necessary to take a step back. As a psychologist and a sociologist, we are most familiar with research conventions within these two disciplines. Other branches of the social sciences have their own standards of what constitutes an acceptable dissertation topic. We have attempted to keep this book as generalizable as possible and to infuse it with examples from other fields. Ultimately, of course, you will need to follow the rules and conventions that pertain to your discipline as well as to your university and department. For example, a few major universities allow a doctoral student to submit a series of published articles as an equivalent to a dissertation. Many others encourage studies that consist of secondary data analyses derived from national databases, such as census data or the General Social Survey, or data obtained from a larger study. Some fields, notably social work, education, policy evaluation, and
professional psychology, may encourage dissertations that solve applied problems rather than make distinct theoretical contributions. Studies that evaluate the effectiveness of programs or interventions are a case in point because they sometimes contribute little in the way of validating a theory. Political science and economics are examples of fields that are diverse enough to accommodate both theoretically based studies and purely applied studies. Within the subspecialty of international relations, for instance, one could imagine a survey and analysis of security agreements of European nations after the unraveling of the North Atlantic Treaty Organization (NATO) that rely on interviews with foreign policy makers and are largely descriptive and applied. In contrast, a study of the role of a commitment to ideology to the success of political parties in the United States, based on an analysis of historical documents and voting records, might be grounded in a theory of how ideology attracts or alienates the voting public.

Moving forward along the research wheel, the researcher uses deductive reasoning to move from the larger context of theory to generate a specific research question. The research question is the precisely stated form of the researcher’s intent and may be accompanied by one or more specific hypotheses. The first loop is completed as the researcher seeks to discover or collect the data that will serve to answer the research question. The data collection process is essentially another task of empirical observation, which then initiates another round of the research wheel. Generalizations are made on the basis of the particular data that have been observed (inductive process), and the generalizations are tied to a conceptual framework, which then leads to the elucidation of further research questions and implications for additional study.

The kinds of skills called for at the various points of the research wheel are reminiscent of the thoughts about learning presented by Bertrand Russell many years ago. Russell noted that there are two primary kinds of knowledge acquisition: knowledge by description and knowledge by acquaintance. Knowledge by description is learning in a passive mode, such as reading a book on how to change the oil in one’s car or hearing a lecture on Adam Smith’s theory of economics. It is the type of learning that is especially well suited for mastering abstract information. Knowledge by acquaintance, on the other hand, is learning by doing, the kind of skill training that comes from practicing a tennis serve, driving an automobile, and playing with a computer. This is concrete knowledge acquisition, oriented to solving problems. The research process demands both skills. First, there is the clear, logical thinking that pertains to working with concepts
and ideas and building theories. It is our impression that many graduate students, particularly those who have experience as practitioners in their fields, are weakest in abstract conceptualization, and honing this skill may be the major challenge of the dissertation. Second, there is the practical application of ideas, including the need to plan a study systematically, then collect and analyze data. The ability to focus, problem solve, and make decisions will help bring the study to completion.