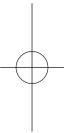# FIFTEEN

Right-Sizing Your Research Method

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Lucinda S. Spaulding, and James A. Swezey

The theoretical framework and conceptual framework are foundational to the doctoral student's research. In this chapter, these frameworks are discussed as they help solidify the purpose of the study and guide the writing of the research questions, which in turn, lead to choosing an appropriate methodology.

In other words, the research methodology needs to align with the research problem, the research purpose, and the research questions, which are guided by study's conceptual framework, which is the author's synthesis of the theoretical, seminal, and empirical literature on a topic. Additional considerations in selecting a methodology are also discussed.
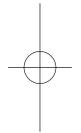
CASE STUDY

June is a doctoral student nearing the completion of her coursework. She is also a newly appointed assistant principal of a large, urban high school. In her new position, she is tasked with two primary roles: (a) facilitating and overseeing the professional learning communities (PLCs) in her school, and (b) finding ways to close the achievement gap between the majority and minority students. With a desire to merge her academic and professional demands, June decides to focus her dissertation research on the role of PLCs in equipping teachers with strategies for meeting the diverse needs of learners in the classroom.

As June begins to immerse herself in the literature on PLCs and the literature on the achievement gap, she begins to become incredibly overwhelmed with the many directions she can take her research.
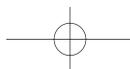
Through her review of the literature, she has identified several gaps in the literature. Should she focus on the role of school leadership in the formation and implementation of effective PLCs for teachers? As a minority herself, June is struggling with whether she should take an advocacy approach to her study and represent the voice of individuals who have typically been marginalized, or whether it would be more prudent to take an objective and neutral stance where there is a great deal of distance between her and her participants.

Frustrated with wading through the literature for several months and coming no closer to a specific research focus, June makes an appointment with her dissertation chair to discuss her challenges. After attentively listening to her summarize the state of knowledge on the topic and the multiple directions she feels she can take her research, June's chair asks her one simple question: "What is your theoretical framework for your research?"

In the discussion that follows, June realizes that while she has been closely analyzing and synthesizing the empirical literature on her topic and efficiently organizing her findings into a detailed outline with key constructs and categories, she has paid little attention to the role of theory in guiding and framing the studies she reviewed. She failed to realize the importance of integrating the empirical with the theoretical into an original conceptual framework for her dissertation research.

WHAT THE RESEARCH SAYS

Many doctoral students are unaware of the role or importance of using a theoretical framework to guide their dissertation research (Anfara & Mertz, 2006). Although doctoral students may be aware of the term, they are often unsure of its definition. And, like June, they are unaware of how it should inform their research. This is in part due to the fact that the term theoretical framework is often not clearly defined in the literature. Further, it is often used synonymously or interchangeably with the terms such as conceptual framework and literature review.

However, the literature review, the conceptual framework, and the theoretical framework are distinct in their definitions and functions. Rocco and Plakhotnic (2009) provide a helpful explanation of the difference between a theoretical and conceptual framework: "Whereas a *theoretical framework* is used when investigating a specific theory, a *conceptual framework* is made up of theoretical and empirical work relevant to the manuscript's purpose, where the purpose is not to further investigate a specific theory [italics added]" (p. 122). Merriam and Simpson (2000) explain that the literature review is conducted "to develop a conceptual framework" (p. 10).
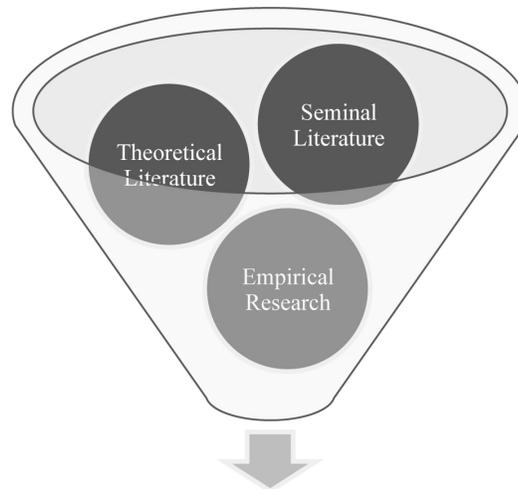
Conceptual Framework and Literature Review

Maxwell (2005) says that the conceptual framework should serve two purposes: (a) shows how the doctoral student's research fits into what is already known (relationship to existing theory and research) and (b) shows how the student's research makes a contribution on the topic to the field (its intellectual goals). In essence, the literature review (typically chapter 2) of the dissertation serves as the conceptual framework for the study.

According to Maxwell (2005), the goal of the conceptual framework "is not to summarize what has already been done in the field. Instead, it is to ground your proposed study in the relevant previous work, and to give the reader a clear sense of your theoretical approach to the phenomena that you propose to study" (p. 123). Similar to Maxwell, Ravitch, and Riggan (2012) present a conceptual framework as

> an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous. By argument, we mean that a conceptual framework is a series of sequenced, logical propositions the purpose of which is to convince the reader of the study's importance and rigor. (p. 7)

In sum, the conceptual framework is the author's original synthesize of the theoretical, seminal, and empirical literature into a cohesive argument for a research study, as depicted in Figure 15.1.

Conceptual Framework:

Underlying Argument for the Study Based on Theory and Previous Research

Figure 15.1.   Conceptual Framework

Although chapter 13 provides an in-depth discussion about writing a literature review and constructing an argument for the need for the study, it is important to understand how the theoretical framework and conceptual framework help focus and justify the research problem (show why the research is important), lead to the doctoral student's proposed research questions and the purpose of the study, and help the doctoral student to identify and justify the type of knowledge needed to answer his or her research question(s).

Theoretical Frameworks

While a conceptual framework consists of both theoretical and empirical literature that is used to inform the research (Rocco & Plakhotnic, 2009), the theoretical framework typically includes one or perhaps two prominent theories.

Anfara and Mertz (2006) define a theoretical framework as "any empirical or quasi-empirical theory of social and/or psychological processes, at a variety of levels (e.g., grand, midrange, and explanatory), that can be applied to understanding a phenomenon" (p. xxvii). Examples of common theories used in social science research include Social Cognitive Theory (Bandura, 1986), Adult Learning Theory (Knowles, 1980), and Attachment Theory (Bowlby, 1940).

Quantitative Research and Theoretical Frameworks

In quantitative studies, where one uses theory deductively and places it toward the beginning of the research plan, the theoretical framework provides an overarching explanation for how and why one would expect one variable to explain or predict another variable, informing the research questions and hypotheses. The theoretical framework thus is central as the study is designed to test the theory.

The qualitative researcher begins the study advancing a theory, collects data to test it, and reflects on whether the theory was confirmed or disconfirmed by the results in the study (i.e., the researcher rejects or fails to reject the null hypotheses). The theoretical framework also serves as the lens in which the literature is reviewed and discussed in chapter 2, often referred to as the literature review in a dissertation.

For example, in her review of the literature, June finds that research is mixed on the effectiveness of PLCs in assisting teachers in the implementation of classroom interventions. Some researchers purport that PLCs have led to teachers' effectively implementing classroom interventions, which in turn, has led to increased student achievement. However, other research suggests that PLCs make no difference in teacher behavior or student achievement.

June notes that the PLCs studied have been implemented in a variety of ways using a variety of technologies. June begins to speculate about the mixed results. Upon further research, she comes across some communication theory, specifically Media Richness Theory (MRT; Daft & Lengel, 1984). Media richness is defined as the ability of a communication medium to convey the meaning of the message (Daft & Lengel, 1984).

A medium's level of media richness is determined by four criteria: (a) the accessibility of instant feedback, (b) the capacity to convey cues such as body language and tone of voice, (c) the use of natural language, and (d) the level of personal focus. MRT is based on the assumption that the use of rich media as compared with lean media results in more effective communication (Daft & Lengel, 1984). Theorists argue that the richer the communication medium, the more the ambiguity and uncertainty are reduced and the better tasks are performed (Daft & Lengel, 1984).

Could it be that the effectiveness of the PLC is influenced by how the PLC is delivered? Some PLCs have been created and implemented using an online discussion forum; whereas others have been created using face-to-face meetings or video conferencing. June methodically reviews the literature on PLCs and media theory; she cannot find any studies that have considered the medium used to deliver the PLCs.

Considering the media richness criteria, June notes that face-to-face and video conferencing PLCs are more media rich than online discussion forum-based PLCs that only use text-based communication. This implies that face-to-face and video conferencing PLCs, when compared to online discussion forum-based PLCs, may result in more effective communication, learning of new interventions, and ultimately a greater likelihood that teachers will implement the new interventions in their classrooms.

So, June proposes the following research questions: Is there a difference in teachers' understanding of the classroom interventions based on the type of PLC they participate in (discussion forum-based, video-conferencing-based, or face-to-face)? Is there a difference in teachers' implementation of the classroom interventions based on the type of PLC they participate in (discussion forum-based, video-conferencing-based, or face-to-face)?

Here June's exploration of the literature and application of theory guided her research questions. The questions posed are aimed at testing a theory in a new setting and examining the relationship between variables, which can be quantified and tested using objective, validated measures. Objective knowledge is being sought to answer the research questions; thus, this is consistent with the paradigm underlying quantitative research methodologies and the purpose of quantitative research (see below for further discussion). As such, a quantitative research design could be an appropriate choice for June to pursue if she chooses to ask these questions for her dissertation research.

Qualitative Research and Theoretical Frameworks

However, as is the case with many research topics, June could also approach her study using a qualitative method of inquiry. While traditionally the use of theory in constructing a qualitative study was discouraged, as theory was considered the *product* of qualitative research, it is now generally accepted that *atheoretical* research is impossible (Anfara & Mertz, 2006). In fact, Merriam (1998) argued that it is "difficult to imagine a study *without* a theoretical or conceptual framework" (p. 45).

Theory plays several important roles in qualitative studies. Anfara and Mertz (2006) explain, "It situates qualitative research clearly within the scholarly conversation, adds subtlety and complexity to what appear at first glance to be simple phenomena, and allows for building a repertoire of understandings, diverse perspectives, of the same phenomenon" (p. 190).

In addition to helping the researcher demonstrate the scholarly significance of a study, developing a theoretical framework for a qualitative study is helpful as it serves as the "structure, the scaffolding, the frame of the study" (Merriam, 1998, p. 45) and also helps the researcher narrow down and focus on one aspect of a topic (Anfara & Mertz, 2006).

For example, June has a clearly identified research focus and compelling problem to investigate, but is still struggling to hone it in and settle on a researchable problem. After reading several quantitative studies employing rigorous true-experimental designs suggesting that PLCs are more effective forms of professional development (PD) than traditional forms of PD, June recognizes that little research exists describing how and why PLCs are effective.

After continued reading and reflection, June recognizes that leadership is central to effective educational endeavors. Leaders play a role in motivating individuals to reach their full potential (Burns, 1978), and educational leadership may be important to understanding the effectiveness of PLCs. While there may be multiple theoretical orientations for her topic (Anfara & Mertz, 2006), Transformational Leadership Theory (Burns, 1978) is quite fitting. June feels the theory provides a good framework for focusing her research on the leadership role in creating and facilitating effective PLCs dedicated to reducing the achievement gap.

As she is investigating a phenomenon within clearly bounded systems (i.e., PLCs), June decides to use a multiple case study design for her dissertation, with each PLC serving as her unit of analysis (i.e., the case). As case studies aim to answer "how" and "why" questions (Yin, 2009) and Transformational Leadership Theory focuses on motivating individuals as well as group performance, June constructs the following research questions: (a) How do PLC leaders motivate members of the community to implement interventions in their own classrooms? (b) Why is partici-

pation in a PLC (small group) an effective form of professional development?

Using an established theory to guide the formation of her research questions will also aid June when she begins to analyze her data, as she can use Transformational Leadership Theory as a "sieve" (Anfara & Mertz, 2006) as she sorts through and begins to make sense of the wealth of data her qualitative inquiry will generate. During analysis, her theoretical framework will provide June with many of the codes, categories, or conceptual labels she needs to develop a cogent analysis and discussion of the phenomenon.

When she publishes her results, readers may have greater confidence in her findings because they've been alerted to the theoretical lens (i.e., perspective) through which she is analyzing her data, while also knowing she consciously revisited the theory throughout her analysis. Therefore, she has minimized some of the subjectivity and bias that are inherent in qualitative research.

Most important, while qualitative studies are limited when it comes to generalizability as they often lack random sampling procedures, by framing her study with an empirically validated theory June is able to situate her research in the "scholarly conversation" (Anfara & Mertz, 2006, p. 192) on the topic within and across disciplines.

In the second scenario, June's exploration of the literature and application of theory also guided her research questions. The theory illuminated an element of PLCs in which little is yet known. This led June to pose questions that were open ended and aimed at understanding a phenomenon with multiple, individual interpretations; thus, this is consistent with the constructivist paradigm underlying qualitative research methodologies.

The Components of Theory

In order to further understand how theory guides research, it's important to understand what theory is and the components that make up a theory. Kerlinger (1979) defined theory as "a set of interrelated constructs (variables), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining or predicting the phenomena" (p.64).

Every theory has three elements (Anfara & Mertz, 2006): (a) concepts: words assigned to events or sensations (e.g., age: amount of time; intelligence: amount of knowledge), (b) constructs: cluster of concepts that form a higher unit of thought (e.g., IQ), and (c) propositions: expression of the relationship among constructs. Borrowing from Anfara and Mertz' (2006) description, Maslow's (1954) theory of motivation is a good example of the relationship between concepts, constructs, and propositions:

> According to Maslow, human beings have a variety of needs (concepts), some more fundamental than others. Maslow grouped these needs into five basic categories (constructs), arranged them hierarchically from "lower" to "higher" (propositions). Lower needs dominate behavior when they are not satisfied. Higher needs become salient only after the lower needs have been satisfied. From these concepts, constructs, and propositions, Maslow concluded that behavior is an expression of one's drive to reduce deficiencies by gratifying the most salient type of needs (theory). (p. xvi)

Theories address many different levels including the individual, the group/organization, or society. According to Agnew and Pyke (1969), good theories are (a) simple, (b) testable, (c) novel, (d) supportive of other theories, (e) internally consistent, and (f) predictive. Anfara and Mertz (2006) quite simply conclude, "A useful theory is one that tells an enlightening story about some phenomenon. It is a story that gives you new insights and broadens your understanding of a phenomenon" (p. xvii).

Additional Considerations in Selecting a Method

As indicated earlier, the theoretical framework provides the lens or the theoretical perspective on a topic and guides the construction of research questions. Often, there may be multiple theoretical orientations for a single topic, and the gaps in the literature highlighted by the lens may lead to research questions that are aimed at knowledge that can be addressed either quantitatively or qualitatively.

There are a few other factors to consider in addition to selecting a theoretical framework for a study, including: (a) the nature of knowledge in relation to paradigms underlying research methodologies, (b) the purpose and feasibility of conducting the research, and (c) individual factors.

Paradigms

Doctoral students need to consider their personally held philosophy about the nature of knowledge and understand the type of knowledge that the research questions aim to uncover. This in turn needs to be considered within the framework of the research paradigms. Gall, Gall, and Borg (2007) suggest that researchers "make different epistemological assumptions about the nature of scientific knowledge and how to acquire it" (p. 31).

Creswell (2009) suggests that the distinction between qualitative and quantitative methodologies is more than the difference between words and numbers: "A more complete way to view the gradations of differences between them is the basic philosophical assumptions researchers bring to the study, the types of strategies used overall in the research . . . and the specific methods employed" (pp. 3–4). In other words, paradigms (and underlying epistemologies) define how the researcher ap-

proaches the world and research and therefore, influence methodological decisions.

Unfortunately, experts in the field continue to argue and debate most aspects of paradigms leaving the novice researcher to struggle through a morass of information. Guba and Lincoln (1994) posited four approaches, which will be used to guide the discussion here: (a) positivism, (b) post-positivism, (c) critical theory, and (d) constructivism.

As with each of the major paradigms, positivism generates fervent discussion and debate among its adherents and detractors, but little consensus regarding its meaning has been reached (Lincoln & Guba, 1985). Gall, Gall, and Borg (2007) defined *positivism* "as the epistemological doctrine that physical and social reality is independent of those who observe it, and that observations of this reality, if unbiased, constitute scientific knowledge" (p. 16).

Positivist researchers claim that universal principles, rules, or laws can be found and applied to general settings regardless of particular, singular experiences, even if those experiences contradict the principle, rule, or law. Individual exceptions are considered "noise" by researchers (Gall et al., 2007, p. 26). The cornerstone of positivism is objective reality.

Quantitative research is consistent with the idea that knowledge is derived from direct observation and logical inference based on observation. Quantitative researchers are concerned with seeking an objective reality through the isolation and precise measurements of variables and a detached, objective stance to research as not to bias the research. Statistical methods are used to examine relationships among variables and make generalizations that can be applied to entire populations.

For example, June could isolate the variable, type of medium, providing teachers with the same PLCs intervention was delivered using three different mediums. She could then measure the dependent variables using validated instruments and analyze the data using statistical analysis. Although June sees a quantitative study as a potential viable option, she has two concerns. First, she is having difficulty identifying validated instruments to measure her variables since the accessible population she is planning to study is composed primarily of minority teachers. The majority of instruments that she has found in the literature have been normed and validated on a primarily Caucasian, middle-class population of teachers.

Second, June believes that knowledge is constructed through the interaction of multiple perceptions, not one objective reality. Thus, the paradigm in which quantitative research is based is not consistent with the beliefs that June holds. Simply because a researcher has a belief about knowledge, it does not limit his or her use of a methodology. It simply requires that he or she struggle with it. Given her belief that knowledge is constructed through interaction and lack of valid measures, June decides to pursue a qualitative methodology.

Postpositivism emerged as a paradigm in response to perceived weaknesses and inadequacies with the positivist framework (Lincoln & Guba, 1985). According to Gall et al. (2007), "Postpositivism is an epistemology that assumes an objective reality, but that this objective reality can only be known imperfectly" (p. 16).

Postpositivism acknowledges that, despite efforts at neutrality, the researcher inevitably will inject bias into a study. The basis for this claim is that social science research invariably results in the inclusion of researcher beliefs and values. For instance, as June seeks to focus her research on the role of PLCs in closing the achievement gap between minority and majority students, she recognizes that she brings certain biases to the study as she herself is a minority.

Critical theory, also known as cultural studies, is a paradigm that posits oppression of various groups, especially minorities, exists as a result of hegemony. *Hegemony* is the perspective that "privileged cultural groups maintain domination of other groups through various cultural agencies that exert power" (Gall et al., 2007, p. 510). This paradigm emerged out of several diverse schools of thought in early-twentieth-century Frankfurt, Germany.

In particular, during the aftermath of World War I, social science researchers began to study the ever-changing forms and roles of social, political, and economic power that enveloped the postwar world. Critical theory since evolved to include feminist theory and critical race theory among others. As June's dissertation is addressing the achievement gap, her study may inherently have a critical element to it as she is seeking to bridge the divide between minority and majority student achievement.

Constructivism, then, stems from the belief that there is no objective reality, but rather reality is a social construct based on individual interpretations (Lincoln & Guba, 1985). It separates itself from the so-called hard sciences in that it acknowledges that studying human beings is distinct from the study of other natural phenomena (Patton, 2002).

One of the leading proponents of the constructivist framework (especially as it relates to grounded theory) is Kathy Charmaz. According to Mills, Boner, and Francis (2006), Charmaz advocates for the researcher as (a) the coproducer of reality along with participants, (b) who is immersed within the data, and (c) and who is an evocative storyteller on behalf of participants. Embracing this paradigm requires that researchers examine their own constructions of reality so that theirs are not imposed on those of the study participants. It is an affirmation that each participant will construct a different understanding of events because they will each experience them differently.

Quantitative research that is aimed at discovering an objective reality is not consistent with this paradigm; however, qualitative research is often grounded in constructivism, in which knowledge is seen as relative and socially constructed. As such, qualitative research is concerned with

understanding a phenomenon from the perspective of those who live it. The researcher is a *human instrument* (Guba & Lincoln, 1994); that is, all data collected is filtered through and interpreted by the researcher. It is important for researchers to examine their own philosophical assumptions in relationship to the assumptions that underlie the two research approaches (Creswell, 2013).

In the chapter case study, June chooses a qualitative methodology. Thus, she needs to recognize her reality as a female minority, she will inherently influence how she conducts her research and analyzes and interprets her data.

Doctoral students must clarify for themselves how they believe knowledge is created as well as what their research questions are seeking to uncover and if they are consistent with the underlying paradigm of each methodology. For example, June believes that knowledge is constructed through the interaction of multiple perceptions and her decision to use a multiple–case study design, which calls for examination of an issue from multiple perspectives, aligns well with this paradigm.

In this discussion of paradigms, it would be remiss to overlook the idea of "paradigm wars" (Gage, 1989; Onwuegbuzie, 2002). While some note that the two methodologies are complementary (Creswell, 2003), and mixed methods may be a viable choice for a dissertation (Johnson & Onwuegbuzie, 2004), Levine (2007) discusses the relationship between methodologies as being contentious. Universities and faculty often have strong traditions related to methodology and hold distain for the opposite methodology.

There are also discipline-specific traditions. For example, hard science disciplines (e.g., physics, biology) have strong quantitative traditions (see Delbanko, 2012). Doctoral students are wise to be aware that contentions between paradigms and methodology traditions among faculty and within scholarly communities exist.

The purpose and feasibility of the research

As discussed, the examination of the literature and application of theory guide the doctoral student to identify a purpose for the research and research questions. In addition to evaluating the type of knowledge that the research question aims to uncover, considering the purpose of the research and nature of the questions provides guidance in choosing a methodology as illustrated in the case of June.

Strauss and Corbin (1990) purport that qualitative methods can be used to better understand any phenomenon about which little is yet known. They can also be used to gain new perspectives on things about which much is already known, or to gain more in-depth information that may be difficult to convey quantitatively. Thus, qualitative methods are appropriate in situations where one needs to first identify the variables

that might later be tested quantitatively, or where the researcher has determined that quantitative measures cannot adequately describe or interpret a situation.

According to Creswell (2007) and Patton (2002), qualitative-focused research questions (a) tend to be broad and more general in terms that quantitative questions as not to delimit the study; (b) are open ended; (c) usually begin with words such as "what" and "how"; (d) do not usually contain directional words such as "effect," "impact," "cause," or "relate"; (e) identify the research site; and (f) ask about people's experiences, the meaning people make of their experiences, or people and their social or interpersonal contexts. Thus, qualitative methods are feasible when the researcher wants to examine a population in which little research has been done and the assessable population is small.

Quantitative research is aimed at explaining the relationship between or among variables, predicting or determining casual relationships, and testing a theory or model (Creswell, 2007). Quantitative focused research questions (Borg, Borg, & Gall, 2007; LaFountian & Bartos, 2002): (a) are specific and restricted in scope. Identify specifically what is to be studied; (b) involve constructs that are measurable numerically; (c) contain directional words such as "affect," "impact," "cause," "difference," or "relate"; and (d) clearly identifies variables. Variables are typically independent (e.g., groups) or dependent (e.g., test scores, attitudinal survey scores), and (e) ask precisely about the difference or relationship between variables.

Quantitative methods are feasible when instruments have been normed and validated to study constructs of interest. Lack of access to large, accessible populations and validated instruments make the feasibility of quantitative research difficult.

Individual factors

There are a few additional factors doctoral students need to consider: (a) time, (b) a desire to work with people versus numbers, (c) writing skills, and (d) a desire to develop skills within a specific methodology. Therefore, doctoral students need to recognize that due to the nature of data collection (narrative versus numerical), qualitative research can be more time consuming than quantitative.

Qualitative research may require more time interacting with people. Quantitative research is likely to require more time interacting with numbers. Quantitative research requires technical, scientific writing; whereas, qualitative research requires more descriptive and narrative writing. Finally, a doctoral student may desire to gain expertise through mentorship within a specific methodology as this may be the one time in his or her scholarly career that he or she has a committee of three people coming alongside to mentor and advise.

STRATEGIES FOR SUCCESS

The following strategies are offered for doctoral students to consider and apply as they begin the process of narrowing their research focus and selecting their research methodology.

Strategy 1: Be Aware of Discipline, Faculty, and Program Paradigm Preferences

As "paradigm wars" exist, social integration within specific scholarly communities (i.e., discipline or university) may be dependent upon a doctoral student's interaction with a specific research methodology (Metz, 2001; Pallas, 2001). Examination of university curriculum, discipline specific journals, and interviews with faculty can provide insight for prospective and first-year doctoral students as to whether a specific methodology (qualitative or quantitative) is preferred over another to survive in the scholarly community.

Strategy 2: Use Coursework to Learn about Theory and Methods

Throughout the knowledge and skill development stage, doctoral students should read literature and seek to understand the difference between conceptual frameworks and theoretical frameworks as differentiating among these distinct concepts can assist doctoral students in better organizing, conceptualizing, conducting, and presenting and discussing the results of their research. The latter point is not an idea that is addressed in this chapter; however, the conceptual framework and theoretical framework need to not only inform the research methodology choice, but also the discussion of findings.

Coursework is also the ideal time for doctoral students to familiarize themselves with various theories within their discipline and outside of their discipline that could potentially frame their dissertation research. Students should identify theories used in research studies and presented in textbooks, read seminal theoretical sources as resources for course assignments, and discuss theory with faculty.

The knowledge and skill development stage is also a good time to develop skills within both quantitative and qualitative methods. Onwuegbuzie and Leech (2005) encourage training in both methodologies, and Creswell and Miller (1997) encourage the personalization of curriculum to prepare for methodology choice for the dissertation process.

Strategy 3: Choose a Theoretical Framework and Articulate Its Application

Once a doctoral student has identified a topic of interest and spent time researching the state of knowledge on the topic (i.e., conducting a review of the literature), he or she needs to identify a theory to frame the

reviewed studies and to guide the development of research questions. Doctoral students need to answer the question that June's chair asked, "What is your theoretical framework for your research?"

Once the theory is identified, it is then helpful to explain how the theory informs the research questions and constructs being examined. If the proposed question is quantitative in nature, the doctoral student needs to explain how the theory informs the choice of variables and the relationship between or among them. Creswell's (2007) script is a helpful tool to use to do this. The doctoral student identifies the theory, who used it, and its applicability.

> The theory I will use is _____ (theory name). It was developed by _____ (origin, source, developer of the theory), and it was used to study _____ (topic where one finds the theory applies)" (pp. 58–59). Then, the doctoral student identifies the central hypothesis of the theory and its adaption to the study, "The theory indicates that _____ (identify propositions or hypotheses). As applied to my study, this theory holds that I would expect my independent variable(s) _____ to influence or explain my dependent variables _____ because _____ (provide rationale based on the logic of the theory). (pp. 58–59)

The theoretical framework also serves as the lens in which the literature is reviewed and discussed in chapter 2 of the dissertation. It is also used to explain and describe the results of the study.

In qualitative research, finding a fitting theoretical framework can be challenging, even for experienced researchers (Anfara & Mertz, 2006). Doctoral students should read extensively on the topic, note the theories other researchers use to guide their inquiries, reflect, and dialogue with their dissertation chair and committee members. They also need to consider their research paradigm when selecting their theoretical framework and ensure that there are no inconsistencies.

As the researcher is the human instrument in the qualitative study (Guba & Lincoln, 1994), he or she needs to clearly articulate to the reader the theoretical framework, how it informs the construction of research questions, choice of methodology, and most important, how it will serve as a lens to filter the data. This last point is crucial; the qualitative researcher needs to acknowledge that while "theories can allow us to see familiar phenomena in novel ways, they can also blind us to aspects of the phenomena that are not part of the theory" (Anfara & Mertz, 2006, p. 193).

Thus, the theoretical framework serves as a *delimitation* to the study (i.e., a researcher decision that serves to focus or narrow the scope of the study) and the limitations that stem from this delimitation need to be clearly acknowledged and explained.

Strategy 4: Choose a Methodology Consistent with the Nature of Knowledge Being Sought

Doctoral students need to allow the exploration of the literature and application of theory to guide their research questions. Once the questions are posed, the doctoral student needs to consider the nature of the knowledge is which the question is assessing as well as the purpose of the question in order to identify the most appropriate methodology.

If the questions are aimed at testing a theory and examining the relationship between variables, which can be quantified and tested using objective, validated measures, then a quantitative methodology may be most appropriate. If the aim is understanding multiple perspectives and representing the voice of individuals who have experienced a phenomenon, then a qualitative methodology may be more appropriate.

Strategy 5: Choose a Methodology That Is Feasible and Aligns with Personal Factors

Doctoral students need to take into consideration (a) time, (b) a desire to work with people versus numbers, (c) writing skills, (d) a desire to develop skills within a specific methodology, and (e) feasibility of the methodology prior to choosing a method. A fear of statistics is not a good reason to avoid quantitative research. In June's case, she plans to examine a problem within a specific context and where the perspective of multiple individuals (e.g., teachers, administrators) is needed to understand the phenomenon. Therefore, the purpose of her research is consistent with qualitative methods.

Further, June has a small assessable population and is studying a population in which very few instruments have been normed and validated, making the feasibility of quantitative research difficult (see chapter 17). June also likes to work with people, is a good writer, and wants to further develop her skills as a qualitative researcher.

QUESTIONS FOR REFLECTION

The selected theoretical framework significantly shapes the nature and direction of the research, including the research purpose, selection of variables (if quantitative) or phenomenon (if qualitative), and the construction of the research questions. The next essential step is right-sizing the research methodology to the nature of the research.

It is important to highlight that the process of selecting the theoretical framework, working it into the conceptual framework for the study, and aligning the methodology is not always a linear and sequential process; the researcher needs to continue to read, reflect, and revise throughout the entire process of developing the dissertation proposal, and for qual-

itative studies, may continue to emerge even after the data has been collected. The following questions serve as a guide in this process:

Theoretical Framework

- What is your research topic? How are researchers in your discipline using theory to guide their research on this topic and related topics?
- What is your specific "research space" or the gap in the literature you will address? What are the key constructs and concepts that you will investigate? What theory(ies) address or explain the relationships between these constructs and concepts?

Conceptual Framework

- Drawing from the theoretical and empirical literature that you have analyzed and synthesized when developing your literature review, what is your overall argument (i.e., your original case) for the need for your study?

Paradigm

- How do you view the world and the nature of reality? As (a) objective and observable, or (b) as subjective and dependent upon personal experience and perspective?
- What is your role as the researcher? To (a) describe, or (b) to advocate, give a voice, or emancipate?

Methodology

- Is your goal to (a) test hypotheses about the relationships between two or more clearly defined variables, or (b) to explore a topic in order to identify variables that may later be tested quantitatively?
- Do you seek to (a) gain new perspectives on things about which much is already known, or (b) gain more in-depth information that may be difficult to convey quantitatively?
- Can your variables of interest or key constructs be (a) isolated and manipulated or (b) are they best observed in their natural environment?
- Can you collect data from your sample using (a) normed and validated instruments, or (b) is the data best collected through observation and in-depth interviews?

If your answers to the paradigm and methodology questions above generally aligned with (a), then you probably need to consider a quantitative method; if your answers generally aligned with (b) you may need to

consider a qualitative method. If you found yourself aligning with both (a) and (b) then your inquiry may be well suited to a mixed methods approach.

However, it's important to note that mixed methods designs involve rigorous qualitative *and* rigorous quantitative data collection and analysis methods, may warrant more than one theoretical framework, and depend on the researcher to successfully integrate and combine findings from each design.

Whether conducting a qualitative, quantitative, or mixed methods study, doctoral students need to consider the following in their choice of research approach:

a. Nature of the problem
b. Accessibility to participants
c. Time
d. Budget
e. A desire to work with people versus numbers
f. Writing skills
g. A desire to develop skills within a specific methodology
h. Overall feasibility of the methodology

RECOMMENDED RESOURCES

Anfara, V. A., & Mertz, N. T. (2006). *Theoretical frameworks in qualitative research*. Thousand Oaks, CA: Sage.

Ravitch, S. M., & Riggan, M. (2012). *Reason & rigor: How conceptual frameworks guide research*. Thousand Oaks, CA: Sage.

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