

Strategies for Linking Theoretical Framework and Research Types

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Introduction

Almost all research studies in social and behavioral sciences regardless of disciplines/programs require a rationale or base for conducting research. This rationale/base is often called theoretical framework. A host of researchers have provided varying definitions of theoretical framework (Sekaran, 2000; Camp, 2001; Elliott; 2005, Tuckman, 1999). A theoretical framework is a conceptual model of how one theorizes or makes logical sense of the relationships among several factors that have been identified as important to the problem (Sekaran, 2000). In essence, it attempts to integrate key pieces of information especially variables in a logical manner, and thereby conceptualizes a problem that can be tested. Theoretical framework visually tells the big picture (research) of the study, identifies literature review categories and directs research objectives. A typical theoretical framework provides a schematic description of relationships between and among independent, dependent, moderator, control, and extraneous variables so that a reader can easily comprehend the theorized relationships (Figure 1).

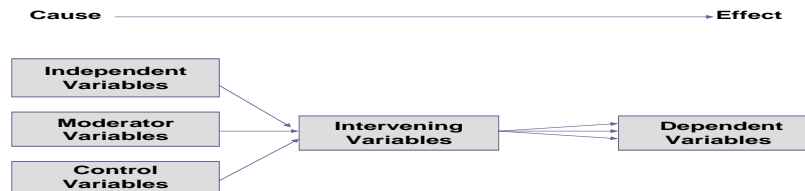


Figure 1: Relationships Between Variables

Although theoretical framework helps build a base for the study, very few studies have discussed linkages between theoretical framework and research types. The focus of this poster presentation is to describe the connection between theoretical framework and research types. Radhakrishna, Leite, and Baggett (2003) presented a typology for research designs used in agricultural education. Using the quantitative research paradigm, they classified research designs into three categories: descriptive, descriptive-correlational, and experimental. The decision to select a research design depends on the goals of one's research study. It also depends on the review of literature which provides a solid foundation for developing theoretical framework. Therefore, the linkage between research types and theoretical framework becomes vital. In the following paragraphs we present theoretical frameworks for each research type with examples.

Theoretical Framework for Descriptive Research (DR)

The goal of DR is to portray accurately the incidence, distribution, and characteristics of a group or situation. In essence, it describes "what is" of the group or situation. In DR, several variables are examined to describe the group or situation. Variables are not distinguished into independent,

dependent, moderator, and control. DR is conducted to identify variables that can be later studied in depth. Usually DR does not involve testing of hypothesis.

Theoretical Framework for Descriptive Correlation Research (DCR)

The goal of DCR is to EXPLAIN/PREDICT relationships. In DCR, variables are identified as independent and dependent to explain possible relationships between the two variables. A thorough review of literature will help identify the variables of interest and its relationships. In DCR, the question of time is essential because of the nature of correlation research—ex post facto, concurrent, and predictive. Selection of variables and appropriate measurement scales are very important since they have an impact on survey development and data analysis. An example illustration of theoretical framework for DCR is shown in Figure 2.

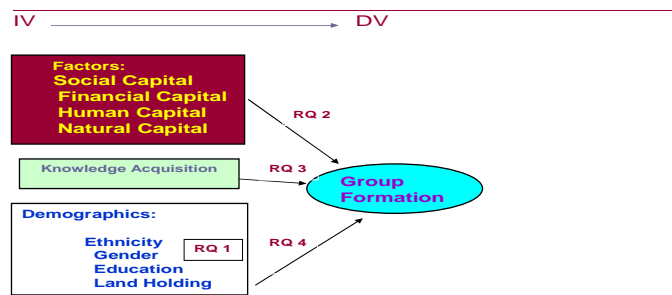


Figure 2: Example Framework for Descriptive Correlation Research

Theoretical Framework for Experimental Research (ER)

The goal of ER is to control outcomes. Three key points are important in designing experimental research: use of control or comparison group, random assignment, and manipulation. Manipulation of the independent variable is very important in order to answer the question; did the treatment make the difference? Experimental research answers the question “WHY” a relationship exists. When answering the WHY question, you are basically incorporating the “WHAT” question from descriptive research and “EXPLAIN” from DCR. In sum, ER builds on the first two research types (DR and DCR) described above. Keep in mind that the three types of research are hierarchical and cumulative. If we are controlling something, then we must be able to explain or predict it. Similarly, if we can explain or predict something, we must be able to describe it.

Conclusions

Building a theoretical framework for a research study is very important. Equally important is to establish links between research type, theoretical framework, and results of a research study (see Figure 3). By following the sequence suggested in Figure 3, the relevance and value of a research study is enhanced. In addition, the proposed sequence helps answer the question, did the study findings answer/justify the rationale/base for conducting the research study?

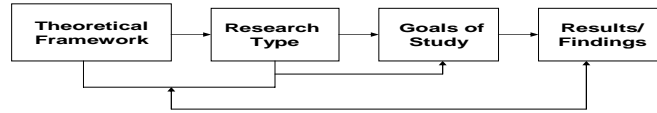


Figure 3: Linkage Between Theoretical Framework and Research Type

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