Chapter 3

Considering the Source:
Sampling and Data Collection in a Mixed Methods Study

Mindy Crain-Dorough
Southeastern Louisiana University, USA

ABSTRACT

The purpose of this chapter is to describe detailed procedures for determining the data collection and sampling methods in a mixed methods study. The nuances of selecting data collection strategies and sampling techniques are explained in a practical way. The points of decision, factors to consider, and methods for weighing the advantages and disadvantages are provided along with tables that can be completed to organize the planning process. The overall design process for a mixed methods study is described to provide the context for the in-depth discussion about data collection and sampling. A fictional study is used as an example to illustrate how to apply the procedure to identify the optimal data sources for a mixed methods study.

INTRODUCTION

There has been much methodological literature written about mixed methods research (e.g., Fetters, Curry, & Creswell, 2013; Leech & Onwuegbuzie, 2009). The existing mixed methods literature primarily provides typologies and conceptual discussions with regard to mixed methods designs, sampling techniques, and data collection methods. This literature has been by instrumental in advancing the area of mixed methods research. Minimal detailed and practical explanation of how to navigate through the process of planning a mixed methods study is provided in the literature.

Some of the literature describes the steps for designing a mixed methods study (e.g., Schoonenboom, 2018), but with little intense focus on specific steps of the process.

The overall purpose of this chapter is to provide novice researchers with step-by-step instructions for one aspect of designing a mixed methods study. The focus of this chapter is the selection of the data collection and sampling methods. This aspect of the mixed methods design process is second in importance to the development of the research questions. The data collected from the study participants becomes the information used to address the research questions following data analysis. The selection begins with identifying the optimal mixed methods data sources needed to address a set of research questions. After considering the possible data collection and sampling techniques, one can plan the methods to use when obtaining the mixed methods data. This chapter unpacks the nuances of decisions to be made and describes in detail how to navigate the logistics. The selection of data collection and sampling methods is described in a practical manner that is not overly technical to meet the needs of the target audience: novice researchers, such as graduate students working on theses or dissertations; junior faculty; and, practitioners in the field conducting research to address real problems in their professional settings.

This chapter has five major sections:

- **Background:** the process for designing a mixed methods study is discussed along with an overview of each of the first four steps of the process;
- **Identifying Data Sources:** a procedure is delineated to use when identifying the optimal data sources needed to address a set of research questions;
- **Selecting Data Collection Strategies:** six data collection strategies are described along with how to weigh the advantages and disadvantages of each with regard to collecting the mixed methods data needed to address a set of research questions;
- **Developing a Sampling Plan:** a procedure to use to develop a sampling plan is described as well as various probability, purposeful, and mixed methods sampling techniques; and,
- **Discussion:** how to identify and describe the mixed methods design aligned with the data collection and sampling decisions is articulated.

BACKGROUND

In this chapter, a *study* is defined to include formal research projects, evaluations, or any other process through which data are examined and used to address questions. The term *data* is defined to include both numerical values or scores, textual

Related Content

Linguistic Analysis of Science Teachers' Narratives Using AntConc Software
Yulia Muchnik-Rozanovand Dina Tsybulsky (2020). *Advancing Educational Research With Emerging Technology (pp. 211-230).*
www.irma-international.org/chapter/linguistic-analysis-of-science-teachers-narratives-using-antconc-software/240392

An Integrated Heuristic for Machine Sequencing With Specific Reference to the Permutation Flow-Shop Scheduling Problem
Kaveh Sheibani (2019). *International Journal of Strategic Engineering (pp. 1-8).*
www.irma-international.org/article/an-integrated-heuristic-for-machine-sequencing-with-specific-reference-to-the-permutation-flow-shop-scheduling-problem/230933

Maps, Graphs, and Annotations as Boundary Objects in Knowledge Networks, Distributed Cognition, and Collaborative E-Research
Paolo Diviaccoand Alessandro Busato (2015). *Collaborative Knowledge in Scientific Research Networks (pp. 387-408).*
www.irma-international.org/chapter/maps-graphs-and-annotations-as-boundary-objects-in-knowledge-networks-distributed-cognition-and-collaborative-e-research/119835

Modeling and Analyzing Trellis-Coded Modulation on Power Line Communication Systems
Ali Hosseinpourand Reza Montasari (2022). *International Journal of Strategic Engineering (pp. 1-10).*
www.irma-international.org/article/modeling-and-analyzing-trellis-coded-modulation-on-power-line-communication-systems/292443

Nanomedicine and Drug Delivery
Prachi Saxenaand Jyoti Varma (2024). *Reshaping Healthcare with Cutting-Edge Biomedical Advancements (pp. 34-49).*
www.irma-international.org/chapter/nanomedicine-and-drug-delivery/346737