


# Chapter 8

## Reliability and Validity of Mixed Methods Research

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### **ABSTRACT**

*This chapter provides a comprehensive guide to conducting reliable and valid mixed methods research, specifically tailored for doctoral scholars. Mixed methods research, blending quantitative and qualitative methodologies, offers a potent approach for delving into complex phenomena. The chapter unfolds in four key steps: design and planning, data collection, data analysis, and reporting and interpretation. In the design and planning phase, considerations such as selecting appropriate research designs, aligning quantitative and qualitative components, sampling strategies, and developing reliable data collection instruments are discussed in detail. Ethical considerations throughout the research process are also underscored. Moving to data collection, the chapter addresses challenges and opportunities unique to mixed methods research, emphasizing vigilance towards threats to reliability and validity, and ethical considerations specific to participant well-being and data integrity.*

### **INTRODUCTION: CHARTING THE COURSE FOR RELIABLE AND VALID MIXED METHODS RESEARCH**

The landscape of doctoral research is shifting, with a growing number of scholars embracing the power of mixed methods research (Creswell & Plano Clark, 2018). This potent combination of quantitative and qualitative data collection methods unlocks deeper understandings of complex phenomena than either method alone can achieve (Denzin & Lincoln, 2018). However, embarking on this mixed methods

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journey necessitates careful consideration of the path ahead. For a PhD dissertation to stand tall, its foundation must be built upon reliability and validity, the cornerstones of rigorous research (Morse, 2003).

This chapter serves as your navigator on this exciting yet intricate trek. We will delve into the essential steps needed to ensure reliability and validity across each stage of your mixed methods PhD research, from carefully choosing your design (Teddlie & Tashakkori, 2010) to meticulously crafting your final report. Whether you are an experienced researcher seeking to refine your approach or a novice adventurer setting out for the first time, this chapter offers valuable insights and practical strategies.

Throughout our journey, we will explore the diverse landscapes of mixed methods designs (Greene, 2007), navigate the challenges and opportunities of data collection (Johnson et al., 2007), and uncover the secrets to unlocking meaningful insights through rigorous analysis (Braun & Clarke, 2006; Charmaz, 2014). We will illuminate the art of weaving quantitative and qualitative findings into a cohesive narrative (Teddlie & Tashakkori, 2010) and guide you in presenting your research with clarity and transparency (Schulz et al., 2010).

Remember, the mixed methods path is not always linear. Expect twists and turns, moments of uncertainty, and exhilarating discoveries. This chapter is here to empower you, equipping you with the knowledge and tools needed to overcome challenges and arrive at your destination – a robust and trustworthy mixed methods PhD dissertation. So gather your curiosity, sharpen your critical thinking skills, and join us as we embark on this exploration of reliability and validity in mixed methods research. Let the adventure begin!

## **Step 1: Design and Planning: Establishing a Solid Foundation**

### **Choosing the Right Design**

Embarking on a mixed methods PhD journey necessitates careful consideration of the research design. Creswell and Plano Clark (2018) outline various mixed methods designs, each offering distinct strengths and alignments with specific research questions. For instance, explanatory designs sequentially combine quantitative and qualitative data to explain causal relationships (Teddlie & Tashakkori, 2010). Conversely, exploratory designs concurrently collect quantitative and qualitative data to generate and understand complex phenomena (Greene, 2007). Selecting the most appropriate design hinges on the nature of your research questions and the desired depth of insight into your chosen topic (Denzin & Lincoln, 2018).

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