

Chapter 6

Combining Scientific Worldviews in Mixed Methods Research

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ABSTRACT

Graduate students and novice researchers can face scientific worldview-related stereotypes, stigmatization, and disruptive tensions during mixed methods research meetings. To avoid such difficulties, there is a need to better understand how to use and combine several worldviews in the same mixed methods study. Yet, little is known on 'how to' combine worldviews. In this chapter, the authors report their literature review of key reference texts and a sample of mixed methods empirical studies. Key findings show five common contemporary worldviews (postpositivism, social constructivism, pragmatism, critical theory, and critical realism) and six possible combinations of worldviews in mixed methods studies: three combinations without integration (a-paradigmatic, substantive theory, and single worldview) and three combinations with integration (multiple worldviews, complementary strengths, and dialectical pluralism). This led to propose a framework and aid for combining worldviews to help team members to prevent and manage worldview-related disruptive tensions in their mixed methods projects.

DOI: 10.4018/978-1-7998-8844-4.ch006

INTRODUCTION

The present chapter is about the pluralism of scientific worldviews in mixed methods (MM) research. It begins with a description of five worldviews commonly used in MM research. Then, to help MM research team members to manage disruptive tensions that may arise from their differing worldviews, it proposes six ways to combine worldviews. It ends with a conceptual framework and a practical aid that MM researchers can use to combine worldviews when they deem this necessary and desirable. The authors' proposal is based on seven years of experience teaching a PhD course on the pluralism of worldviews in MM research, and a synthesis of what MM scholars have reported in the literature.

MM research is an opportunity to cast new light on the use of researchers' differing personal worldviews. However, this comes with several challenges because researchers may experience worldview-related interpersonal tensions when working in MM teams (Mertens et al., 2016). While some tensions can be creative and constructive, worldview stereotypes and stigmatisation can be very disruptive, especially for novice researchers and graduate students. These challenges are rarely reported in MM research publications, and few MM reference texts address how to handle worldview-related tensions and how to combine worldviews. The scarcity of solutions testifies to the need to provide comprehensive guidance for how to combine worldviews in MM research, when doing so is constructive and desirable.

The purpose of this chapter is to propose a comprehensive understanding of the combinations of worldviews in MM research and derived recommendations to prevent and manage worldview-related tensions. These combinations are especially important when research team members do not share a similar worldview. The proposed framework suggests an aid (a decision tree) for graduate students and novice researchers to combine worldviews in MM projects. The framework can be especially useful in information science where students and researchers use a variety of qualitative (QUAL) and quantitative (QUAN) methods, and adhere to a variety of worldviews. The framework cannot reduce worldview-related stereotypes directly, but it can help to better understand and handle them.

To build and propose these solutions, the specific objectives of this chapter are as follows:

- O1. Identify reference texts on worldviews in MM.
- O2. Define two extreme worldviews incompatible with MM.
- O3. Present the characteristics of the most common worldviews compatible with MM.
- O4. Determine combinations of these worldviews in MM research.
- O5. Describe the frequency of the reporting of worldviews and combinations of worldviews in MM empirical studies.
- O6. Propose a conceptual framework and a practical aid for combining worldviews.

BACKGROUND

Worldviews are defined as individual sets of philosophical assumptions or beliefs that guide actions. Thus, combining worldviews means supporting the perspective or mental model of each member of MM research team or thesis committee (mental models used to read and interpret MM protocols, publications and studies). In contrast to the community-level concept of paradigm, which reflects the shared commitment of a community of scientists to a set of logics, models and exemplars (Hacking, 1981; Kuhn, 1983), authors use the individual-level term worldview to indicate that the focus is on a person's view of the

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