

# Chapter 13

## Mixed–Method Approach Operational Paradoxes in Social Science Research: Views From the Authors

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### ABSTRACT

*This study sought to investigate common operational grounding for applying the mixed-method approach in social science research. This qualitative study used an open-ended questionnaire to collect data from various senior professionals or researchers, specifically those with a PhD qualification, to gather information about their understanding or views relating to the application of the mixed-method approach. Purposive sampling was used to select participants from different journal issues publishing library and information science-related research works, nationally and across the globe. The study discovered that various researchers in social science research have different views and use different approaches when implementing the mixed-method approach. The study recommended a common approach to implementing mixed-method research by means of a framework as a guideline on what constitutes the mixed-method approach and how to implement the approach.*

### INTRODUCTION AND BACKGROUND

Mixed-method research is a research approach or method that entails an equal mixture of qualitative and quantitative data collected by means of one or more data collection tools with closed-ended and open-ended questions or structured and unstructured questions (Marutha, 2020, p. 421). Ngulube (2019, p.

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90) alludes that mixed-method research is developed as a third research methodology, employing two research strategies drawn from qualitative and quantitative methodologies to gather and analyse data and draw conclusions. Mixed-method research is also defined by Teddlie and Tashakkori (2010, p. 11) as research design that uses qualitative and quantitative data gathering and analysis methods parallel or sequentially. On the other hand, Ngulube and Ngulube (2015, p. 1) regard MMR as a “methodological eclecticism which involves the utilisation of quantitative and qualitative approaches within a single study”. Creswell (2015, p. 1) underscores that mixed-method research is not only about a combination of data in a qualitative or quantitative form, using interviews and observation or survey and experiment respectively, but also involves the integration of data in a qualitative and quantitative form from collection to analysis to provide a clear understanding of the research problem. The basic idea of MMR is that such a combination allows a more complete and synergistic use of data than qualitative and quantitative data collection and analysis alone (AHRQ, 2013, p. 1). Hence, “many methodological pragmatists deploy mixed methods research designs in investigating social reality as a way to understand it better” (Ngulube, 2019, p. 80).

Mixed-method research (MMR) is becoming the choice of most researchers because of the methodological variety that offers more enhanced quality data than a sole method (Creswell & Garrett, 2008). Creswell (2015, p. 1) underscores that mixed-method research gained popularity over the past 25 years and is increasingly receiving attention from social science researchers, although Creswell and Plano Clark (2011) saw it gaining popularity between the 1980s and 1990s. Growth and application of MMR research in social science research has occurred at a time of increasing social problems worldwide. Maxwell (2016) shows that MMR was started to be realised in the 1980s with the application of triangulation through Campbell and Fiske’s (1959) work. Creswell and Plano Clark (2011) were highly established and formed between the 1950s and 1980s, and during that period, a lot of researchers preferred the application of more than one method in their studies than single method. Teddlie and Tashakkori (2003) underscore that MMR was also applied between the 1900s and 1950s, however, the importance of applying it was not visible or making sense to readers. MMR has since become a predominant method in different fields of study (Ngulube 2014, p. 1), owing to the value and benefits that it offers to social science researchers when exploring current social problems facing humanity such as the COVID-19 pandemic. Essentially, “qualitative data provide a detailed understanding of a problem while quantitative data provide a more general understanding of a problem” (Creswell & Plano Clark, 2011, p. 8). MMR can use both methods to concurrently study different kinds of confirmatory and exploratory questions, while solo-approach researchers commonly study only one of the approaches (Tashakkori & Teddlie, 2010, p. 9). This implies that MMR may provide social science researchers with a detailed well-balanced study of research problems.

Notwithstanding its increasing popularity, contradictory understandings still reign among scholars. Among these scholars are De Loo and Lowe (2011, p. 24), who opine that the value of MMR to knowledge is often overrated and Tashakkori and Teddlie (2010, p. 10), who argue that MMR is fundamentally more costly than the single-method approach. Costs are in terms of finance and time in that both quantitative and qualitative approaches are used. This may be more applicable to master’s and doctoral students whose research projects are time-bound; and MMR studies are criticised for often having a post positivist preference with the propensity of perceiving the qualitative strand as subordinate to the quantitative strand. The other criticism of MMR is that not all the research questions will be answered through MMR as “the best method for any given study... may be purely QUAL or purely QUAN, rather than mixed” (Tashakkori & Teddlie, 2010, p. 10).

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