

Chapter 4.13 Addressing complexity through mixed methods

Authors: O’Sullivan T, Khan Y.

Further reading

1. Creswell JW. A Concise Introduction to Mixed Methods Research. Thousand Oaks, CA: SAGE; 2015.

Summary of this document: This reading provides suggestions for readers who would like to expand their knowledge of mixed methods.

In this short textbook, the author introduces mixed methods research, with a focus on social, behavioral, and health science. It describes the theories and principles behind mixed methods research and illustrates the steps of executing a mixed methods study. The textbook also provides guidance on evaluating the quality of a mixed methods study and preparing a manuscript for publication. This book is practical for use in workshops, seminars, global webinars, and as a supplementary text in undergraduate and graduate classes.

2. Creswell JW, Plano Clark VL. Designing and Conducting Mixed Methods Research (2nd edition). Los Angeles: Sage Publishing; 2011.

Summary of this document: This reading provides in-depth explanations of considerations for conducting mixed methods studies.

In this textbook, the authors introduce the design and execution of mixed methods studies. The book outlines seven mixed method study designs and includes published examples of each design. The textbook walk readers through the entire research process, from formulating questions to designing, collecting data, and interpreting results and include updated examples from published mixed methods studies drawn from the social, behavioral, health, and education disciplines. This text is intended for use in Intermediate/Advanced Research Methods, Mixed Methods, Research Design, and Social Research Methods courses across the social and behavioral sciences.

3. Gunderson LH, Holling CS, editors. Panarchy, Washington, US: Island Press; 2002.

Summary of this document: Ecological, economic, and social elements all play a role. This reading provides suggestions for readers who would like to expand their knowledge of mixed research methods that integrates diverse elements.

In this collection of scholarly essays, the authors take a systems-based approach to understanding environmental management. It argues that adaptive environmental management should focus on the idea of panarchy, an evolving hierarchy that integrates natural, human, and human-natural systems. The book explains the theory of panarchy, existing models, and how it can guide practical environmental management interventions. The book concludes that identifying the structure of panarchies can allow researchers to better locate targets for resilience and sustainability interventions.

4. Johnson RB, Schoonenboom J. Adding Qualitative and Mixed Methods Research to Health Intervention Studies: Interacting With Differences, *Qualitative Health Research*; 2016: 26(5): 587-602.

Summary of this document: This reading provides an in-depth explanation of considerations for conducting mixed methods research studies.

In this short article, the authors outline how qualitative and mixed methods research can be introduced to health intervention research through the theory of dialectical pluralism. It outlines the limitations of current randomized controlled trials (RCTs), and the authors describe how the “both/and” approach offered by dialectical pluralism can enrich the quality of RCTs. Examples of strategies for identifying, inviting, and creating divergence and integrative strategies for producing strong mixed methods intervention studies are provided and illustrated using real-life examples. The authors conclude that the use of qualitative and mixed methods research can improve the relevance, integrity, and validity of health intervention studies.

5. O’Cathain A, Murphy E, Nicholl J. Three techniques for integrating data in mixed methods studies *BMJ*; 2010: 341: c4587

Summary of this document: This reading provides an in-depth explanation of considerations for conducting mixed methods studies.

In this short article, the authors provide three approaches to incorporating data into mixed methods research. It outlines triangulation, “following a thread,” and mixed methods matrices as approaches to combining the strengths of qualitative and quantitative research. The authors indicate that these approaches typically take place at either the analysis or interpretation stages of a mixed methods study. The authors conclude that structured approaches to integration can provide mixed methods researchers with better credibility, though research teams must carefully coordinate data integration responsibilities.

6. Palinkas L, Aarons G, Horwitz S, Chamberlain P, Hurlburt M, Landsverk J. Mixed Method Designs in Implementation Research. *Administration and Policy in Mental Health*; 2011: 38: 44–53.

Summary of this document: This reading provides an in-depth explanation of considerations for conducting mixed methods studies.

In this short article, the authors describe the application of mixed method designs in implementation research in 22 mental health services research studies published in peer-reviewed journals published between 2005 and 2009. The articles used seven different structural arrangements, five mixed methods functions, and three ways of integrating quantitative and qualitative data. The authors argue that the complexity of a study’s design is correlated with the number of objectives a study aims to achieve, along with the study’s context and the implementation phase being analyzed. The authors conclude with a series of recommendations for implementation researchers, which include moving beyond the strict use of randomized controlled trials.