

How to Mix Methods is a concise and accessible guide to the methodology. Katz-Buonincontro outlines the fundamentals clearly and engagingly for research methods students through numerous examples, intriguing metaphors, and detailed flowcharts. This state-of-the-art resource is a substantive contribution to the mixed methods literature.

— **Johnny Saldaña, MFA**, Professor Emeritus, Arizona State University,
Phoenix, AZ, United States

This clear and well-planned-out book is a needed addition to all researchers' bookshelves who plan to conduct or are conducting mixed methods research! The book will assist in conducting a rigorous mixed methods study and includes many excellent suggestions for overcoming challenges that may arise throughout a mixed methods study.

— **Nancy L. Leech, PhD**, Professor, University of Colorado Denver,
Denver, CO, United States

As an experienced mixed methods researcher and mentor, I appreciate how this book concisely explains the design essentials. Its conversational tone and practical examples demystify the requisite integration of qualitative and quantitative research. Despite its brevity, this comprehensive introduction reflects contemporary mixed methods research practices, offering an accessible approach to enhancing research capacity and innovation.

— **Cheryl Poth, PhD**, Professor, University of Alberta,
Edmonton, AB, Canada

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INTRODUCTION

Welcome to *How to Mix Methods: A Guide to Sequential, Convergent, and Experimental Research Designs*! If you are intrigued, curious, or even a little skeptical about how to design a mixed methods research project, then this book is for you. It's also for those teaching a mixed methods class and mentoring others in mixed methods research. *Mixed methods research* is the purposeful design, combination, and integration of at least one qualitative and at least one quantitative research method into a comprehensive research project that incorporates multiple ways of making sense of the social world (Greene, 2007). For many reasons, researchers developed mixed methods when single-method studies alone did not suffice to answer research questions or hypotheses: to explain quantitative results with rich qualitative data, to enhance the cultural validity of measures with new items representing lived experiences garnered from focus groups, or to understand the voices of patients during medical interventions through interviews, for example.

This book can help you if you have experience in qualitative research but not quantitative research, or vice versa, and want to learn how to mix methods. It may also be a great resource if you are working with a team to

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How to Mix Methods: A Guide to Sequential, Convergent, and Experimental Research Designs, by J. Katz-Buonincontro

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complement and balance your methodological expertise. In addition to standard quantitative and qualitative data, you may be considering the choices you have with unconventional data that you haven't learned about through a class or prior research experience—data that do not include words or numbers, such as photographs, maps, or other types of visual or multimodal data that conjoin sound and movement (e.g., video data). As a result, you may be searching for the best way to combine qualitative and quantitative data to craft a mixed methods design that is feasible within a set context or timeline.

Sometimes, it can be confusing to figure out how to sequence and bring together data that are meaningful without adopting what can be called “the kitchen sink approach” of pulling together different types of data and retrospectively hoping the data make sense. As in my book *How to Interview and Conduct Focus Groups* (Katz-Buonincontro, 2022), I'll walk you through essential steps to avoid some common mistakes and to clarify confusing parts of mixed methods designs.

WHY A NEW MIXED METHODS BOOK?

Several mixed methods books are on the market, and this one is different. In today's world, your time is at a premium, and you may feel you need to learn research methods FAST. I hear you! So, I've written this book using clear and concise steps situated in the core mixed methods literature. The recommended steps are cross-checked against the literature and experts as well as pulled from my teaching and research experience to ensure they are sound. They also reflect the American Psychological Association's mixed methods article reporting standards (MMARS; Levitt et al., 2018) and other standards published in handbooks, books, and journals that presaged the MMARS. As a result, *How to Mix Methods* can help you navigate how to design a sound, rigorous project.

While many mixed methods books and handbooks are excellent, some are long or wordy. Mixed method articles and books take many forms of writing, and some scholarship uses complicated terminology. Older mixed methods articles exempt key steps in methodological integration, mostly because the field did not require it. The nomenclature and descriptions of mixed methods designs can be hard to understand. Sometimes, scholars use complex terms like “mixed methods embedded experimental design.” Unpacking this design is like peeling back layers of an onion. The design presumes understanding in (a) experimental research, (b) mixed methods

research, and (c) the overlap between the two designs in the placement of qualitative research before, during, or after the experiment. And that's a lot to unpack!

How to Mix Methods can help you break down experimental designs so you can see your choices more clearly and begin a project using simple steps. Once you get a handle on your key design, you may want to complement it with handbooks in specialized mixed methods areas (such as the health fields). As such, this book is not exhaustive or representative of every mixed methods design. Rather, it describes basic mixed methods with essential steps. Individual, highly specialized qualitative and quantitative designs can be referenced in other books. Advanced statistical analyses and qualitative analyses are not explained in detail, as other books address these areas. Multimethod studies that include biological sample collection with quantitative surveys but no qualitative data, for example, are excluded.

SHEDDING FEARS

The word “research” may connote rigor and high standards, causing you to experience a dash of anxiety. To some, research reinforces the idea of academic privilege because researchers need a doctoral degree to conduct research. It's not uncommon for people to feel they are not smart enough to do research and to be troubled by imposter syndrome. That feeling is reinforced in graduate programs that use the language “pass” and “fail” to describe a student's success based on the quality of research theses or dissertations, so it's no wonder people develop fear about doing research. Many are intrigued by the idea of doing a mixed methods project but are scared that they may not be competent in both quantitative and qualitative research methods. Acknowledging and gradually shedding fears about doing research as you become more familiar with the method will plant the seed of appreciation for mixed methods.

BROADENING OUR METHODOLOGICAL FOCUS

If you identify as either a qualitative researcher or a quantitative researcher, then mixing methods will challenge you to broaden your methodological focus. Studying qualitative research holds a stigma in certain circles, as some people describe qualitative research as not real or valid or claim that it relies on cherry-picking. On the other hand, some researchers might think

quantitative researchers whip up their stats to answer any question they want, without care to uphold the integrity of the original hypotheses. It's important to cast these stereotypical beliefs aside because each type of research method has its own purpose and history that can be capitalized upon through mixed methods research. Some people might be concerned that mixed methods designs can potentially compromise the quality of either the quantitative or the qualitative component. When carefully designed, though, mixed methods studies do not skimp or use shortcuts for a method; rather, they attempt to properly join two or more methods together in a logical way that addresses the research questions and/or hypotheses.

THE PURPOSE OF THIS BOOK

Is research fun? For some, it is. For many, research can be fun with the aid of mentors and team members and, hopefully, with a practical resource like this book. This book can help you overcome anxiety when facing timeline delays, equipment shortages, study attrition, and other challenges unique to mixed methods, such as the divergence in quantitative and qualitative results. *How to Mix Methods* is designed to help you carry out a high quality, credible mixed methods research project. It explains basic strategies for mixing qualitative and quantitative research methods with confidence to create a clear and comprehensive project in educational, psychological, health, medical, and other social sciences. This book will help you to design your project, conduct, analyze, and integrate data and to write up and publish your mixed methods research.

LET'S GET MIXING!

Have you ever tried to whip up a bowl of pancake batter but were puzzled by the lumps? If you are a novice baker, like me, you may have tried pulverizing the lumps in vain, only to discover that some lumps are not just okay but in fact are necessary to let the pancakes get nice and puffy later in the cooking process. My efforts to please my hungry kids belied my patience. Likewise, the process of mixing methods can be a little like mixing pancake batter: The lumps are a metaphor for the challenges faced when figuring out how to literally mix qualitative and quantitative data.

A mixed methods project first may be a little "lumpy," but through clarifying your design, implementing it with necessary adjustments, and integrating

the qualitative and quantitative data, your mixed methods project can result in a strong and compelling research story that helps you answer important research questions as well as get published, extend your field, attract grant funding, and contribute to solving real-world problems. Each person comes to the practice of mixed methods research in a different way. Mixing methods is not taught in high school, undergraduate courses, or in many graduate programs. So, how can you get started? Let's see how the chapters in this book will set you up for success.

OVERVIEW OF THIS BOOK

This book describes the essential steps in designing a sound mixed methods project. The steps in each chapter are intended to guide you but are not carved in stone. Experienced researchers may choose to adapt them according to their personal preferences or use them to guide and mentor postdocs, students, and colleagues.

Each chapter provides explanations of specific mixed methods designs; describes how essential design principles are used; and points to published studies to clarify the sampling, data collection, analysis, and integration choices used within the context of each mixed methods design. Diagrams accompany each mixed methods design as learning aids to clarify the sequencing of methods. At the end of the book, a glossary lists major terms as a reference for the key definitions in mixed methods research. And lastly, I've included clips from correspondence and interviews I conducted with mixed methods experts to give you their fresh perspectives on the leap they made from single-method research to mixed methods research.

Chapter 1 briefly explains the origins of mixed methods, points out the differences from single-method studies and multimethod studies, and unpacks the definition of mixed methods research and its elements. The processes of working with committees, research teams, and community groups are discussed, as are reflexivity, positionality, and ethics.

Chapter 2 outlines 10 essential features of any mixed methods design. If you get confused, feel lost, or decide to change your design when mixing methods, come back to this chapter to help clarify the commonalities across mixed methods designs. Each of the 10 essential features is explained with (a) a definition, (b) a published example, and (c) a design reflection question. The chapters following go deeper into specific designs to help you refine the selection and operationalization of your project.

Chapter 3 explains steps for sequential mixed methods designs. This design is described before convergent (or parallel) designs and other mixed

methods designs because sequential designs are generally the most popular mixed methods research designs. Explanatory sequential mixed method designs often include a survey (quantitative) followed by an interview (qualitative). In sequential mixed methods designs, each phase of data collection is completed separately and then the results are analyzed and interpreted together. Exploratory sequential mixed methods designs flip this order of data collection, using interviews or focus groups first as a core approach to developing or altering a survey or instrument. As such, they are especially appropriate for culture-specific, newly researched, and overlooked areas of study.

Chapter 4 explains the essential steps for convergent mixed methods designs (also called concurrent or parallel designs), which include both qualitative and quantitative methods collected separately or in sequence and then analyzed together. This design works well when the researcher has no conceptual reason to sequence a quantitative and qualitative element or has no time to provide two separate phases in the project. The data transformation method is discussed in terms of converting qualitative data sets into quantitative data sets. In this approach, verbal data or transcriptions can be “qualitized,” or analyzed thematically (based on emergent themes), and these themes can then be “quantitized” or counted (numerically).

Chapter 5 provides the essential steps for embedding qualitative methods before, during, or after a psychological, educational, behavioral, or medical experiment using an intervention. Most mixed methods research books rarely discuss experimental designs or reference them as a smaller subset and thus do not provide an entire chapter on this design. Interview or focus group data collection before an experiment allows for stakeholders’ input and feedback on research questions and the qualities of the intervention before or as it is being designed. Qualitative data can be used to reveal participants’ subjective experience during an experiment, such as obtaining spontaneous verbal reactions to stimuli or situations in randomized conditions. After the intervention, collecting qualitative data can give the researcher the opportunity to ensure the intervention is going as described in the grant or research proposal (fidelity of implementation).

Chapter 6 covers mixed methods validity, triangulation, and the integration of quantitative and qualitative results and joint displays. Many books refer to integration briefly or do not clarify the junctures at which integration can occur. Thus, Chapter 6 defines four types of integration: sampling integration, data collection integration, analysis integration, and results integration. A discussion of joint displays, or graphical displays that represent the overlap or divergence of the qualitative and quantitative results, focuses on three

types of displays: classic side-by-side tables, color-coded joint displays, and creative joint displays.

Chapter 7 offers strategies for writing up, presenting, publishing, and planning a grant proposal for projects using mixed methods designs. Writing tips focus on whether to keep both quantitative and qualitative components together in a concise manner to meet journal word-length requirements or to separate them. Publication strategies are important because mixed methods research projects include multiple data sets, which can be challenging to report in one succinct manuscript.

Finally, at the end of the book you will find three appendices. Appendix A is an at-a-glance review of the major mixed methods designs described in this book. It is a quick reference for gauging your progress toward completion of your mixed methods project, especially with your team. If you've forgotten how to do a step, you can easily flip back to the right chapter and read the detailed explanation again. Appendix B includes a list of journals that publish mixed methods studies. Appendix C lists programs and professional organizations in mixed methods. In addition, the glossary lists key definitions important in mixed methods research.

By the end of the book, you will be able to:

- Identify the 10 essential design elements of all mixed methods research, no matter the specific design
- Clearly distinguish between the purpose of three different core mixed methods designs
- Figure out which design works best for your research, considering adaptations to suit your own unique context, research aims, and the requirements of your program, research team, research partners (e.g., a clinic, school or teacher), or grant
- Identify and describe appropriate strategies to establish validity and to strengthen your mixed methods design
- Practice ways to integrate the qualitative and quantitative strands of your mixed methods project, including using a joint display
- Determine the complementary skills you may need to shore up through further reading, classes, or collaborations with other researchers
- Develop effective presenting and writing strategies, including developing a publication or grant application plan for your mixed methods research project

Enjoy reading, discussing, and sharing these chapters!