

## **Review: An Introduction to Fully Integrated Mixed Methods Research, by Creamer, Elizabeth G\***

Creamer, Elizabeth G. 2018. *An Introduction to Fully Integrated Mixed Methods Research*. Thousand Oaks, CA: SAGE Publications. 296 pp. \$69.00 (paperback)  
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If complexity and interdisciplinarity are crucial challenges for urban planning research, our field should build more sophisticated approaches to understanding problems. *An Introduction to Fully Mixed Methods Research* provides a clear and comprehensive basis for the simultaneous integration of qualitative and quantitative information, strengthening the alignment of how we think about complex truths in urban planning and how we devise solutions that integrate the breadth of knowledge for wicked problems. To evaluate the book for multiple audiences, we approach this review as a professor and graduate student team.

The book is designed as a course text and professional reference, with a hierarchical layout, key terms in bold, and a handy glossary of terms in the back. However, the book is mostly written in an engaging style that supports reading straight through. It offers specific guidance on developing a research proposal or a doctoral dissertation. Most of the language is accessible to a general audience. However, students may gain more from the work if previously introduced to research design philosophies and qualitative and quantitative approaches.

What distinguishes Creamer's approach to mixed methods is the emphasis on full integration—mixing throughout a project's stages (planning and design, data collection, sampling, analysis, and drawing inferences). Further, this text emphasizes *meta-inferences*, which "link, compare, contrast, or modify inferences generated by the qualitative and quantitative strands" (p. 246). If this concept seems abstract, readers will appreciate her metaphor of an architectural arch on the book's cover—where qualitative and quantitative build the two sides, while the top keystone allows the structure to stand on its own. The keystone is the meta-inference, which serves as a goalpost for mixed methods research across the book's four parts with ten chapters.

Part 1 provides a basis of definitions, purposes, and paradigms of mixed methods research. The first chapter introduces distinctions between quantitative and qualitative methods and Creamer's metaphor of an architectural arch. To expound on the idea that quantitative and qualitative approaches can be conceptualized as a continuum (Teddlie & Tashakkori,

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2009), Creamer provides a table showing that mixing throughout each phase of the research process can contribute to a mixed methods study. The second chapter emphasizes the importance of methodological transparency and typologies to craft a purpose statement. Creamer lists several signal words for different purposes, practical for graduate students and novice researchers alike. Chapter three shows how to strengthen research design by aligning research paradigms and approaches to knowledge production, discussing how philosophical transparency can contribute to a mixed methods study. The fourth chapter describes ways of designing a mixed methods study concerning timing and priority. However, no explanation is offered for why one mixed methods design should be chosen over another.

The second part of the book includes three chapters to guide executing fully integrated mixed methods research. Chapter five provides strategies for mixing quantitative and qualitative approaches when writing a research question, combining different sample selection methods, and integrating data collection techniques. Unlike in the discussion of research questions and sampling methods, a table illustrating different data collection techniques is not provided. Even so, the many examples mentioned in this chapter are practical and easy to comprehend. Chapter six describes five mixed method analytical procedures: blending, converting, extreme case sampling, cross-case comparison, and meta-inferences. Chapter seven explains and illustrates different data transformation approaches in mixed methods research, such as quantifying, quantizing, and qualitzing. Page 107 includes a mistake worth pointing out to students: the term *quantizing* is switched with *qualitizing*, while the correct definition is repeated verbatim on the same page.

The third part focuses on evaluating the quality of research publications and designing a research proposal or dissertation. Chapter eight discusses the use of various criteria (transparency, mixing, interpretive comprehensiveness, and methodological foundation) to assess the quality of mixed methods research. The chapter presents a Mixed Methods Evaluation Rubric, which can help researchers evaluate mixed methods work across disciplines, and beginning researchers to evaluate their research designs before implementation. Chapter 9 highlights content analysis for graduate student research and describes how tables and figures can be used to communicate steps taken in a mixed methods study. Graduate students and new researchers will appreciate the tables provided in this chapter, which tie some concepts introduced in previous chapters to the sections of a research report.

The book's final part emphasizes controversies and future directions, describing the uses of mixed methods research across academic disciplines, giving chapter exemplars, and summarizing major concepts referenced throughout the book. However, chapter ten lacks a discussion of emerging technologies such as big data, social media, and software analysis tools that can be useful for mixed methods research. Appendices serve as an easy reference to the book's many evaluation tools, but they repeat content elsewhere in the text. The publisher, SAGE, hosts an online Student Resource Site with self-quizzing tools and links to journal articles for additional study. Additionally, SAGE offers a password-protected Instructor Teaching Site with editable draft syllabi, slide decks, and other resources. Taken together, the book and online resources offer cohesive and clear support for teaching mixed methods research.

This text is one of a few that strongly connects philosophical assumptions to specific methods—a vital issue for graduate students and early-career researchers. Planners are familiar with several of the paradigms that Creamer aligns with mixed methods: pragmatism, dialectical pluralism (relates to constructivism), and transformative-emancipatory (sometimes aligned with advocacy or radicalism). However, her emphasis on critical realism may be particularly of interest to planning researchers, which some purport is under-recognized in our field (Næss 2015). She describes critical realism as recognizing that reality exists independent of observers and that perceptions are imperfect and incomplete.

This book provides a straightforward process for evaluating the quality of mixed methods research, which is useful at the design stage, for peer review, and for evaluating student work. The four major criteria of transparency, mixing, interpretive comprehensiveness, and methodological foundation expand upon other scholars' evaluation frameworks.

To help them understand this book, readers should have a foundational knowledge of research methods and designs (i.e., methodological foundation). Creamer's architectural arch metaphor, which speaks of quantitative and qualitative strands as the two pillars and a meta-inference as the keystone—cannot stand on its own without a methodological foundation.

Four of nine exemplary articles cited in this book are ambitious, large-scale mixed method studies. Attempting to model such studies might not be feasible for graduate students—whether at the master's or doctoral level—to undertake, especially if they have limited time and resources. Because this book is geared towards graduate students and new researchers, each chapter should include an exemplary article that would be feasible for an independent researcher to attempt.

Adam Millard-Ball and Keuntae Kim's (2020) contribution to advancing urban planning methods describes that mixed methods are growing in importance to address wicked urban problems in an era of big data. However, few research guides delve into how to design and implement a fully integrated mixed methods study. Creamer's book may be the most cogent approach to mixed methods research available. Planning researchers and students can use this text to learn how to design, execute, and evaluate mixed-methods studies with an interdisciplinary social science perspective.

## References

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