## *Book Review*

# Coe, R., Waring, M., Hedges, L. V., & Arthur, J.(Eds.). (2017). *Research methods and methodologies in education* (2nd. ed.). Thousand Oaks, CA: Sage.

## Reviewed by: Sarah Elaine Eaton, University of Calgary

This book is aimed at graduate students and early career researchers working in education, though it could easily have applications in other disciplines too. It is divided into five parts: (a) Introduction to research methods and methodologies in education, (b) Basic principles and practice in conducting research, (c) Research designs, (d) Data collection tools, and (e) Analysis methods.

This book fits into the current thinking on educational research methodologies by covering some traditional topics with a fresh perspective. For example, when Gibbs tackles the topic of focus groups in Chapter 22, she tackles the delicate subject of cultural challenges (p. 193-194), offering additional citations that researchers can follow up on to learn more. She then explores some of the complexities of conducting online focus groups, noting that "research will increasingly be done online" (p. 194).

At the same time, the book offers an instructive overview into more cutting-edge research approaches. For example, Stirling's chapter on "Doing social media research" (Chapter 24) offers in-depth insights into social media methods (p. 208), social media as a space and place (p. 208), and learners' use of social media (pp. 208-209), as well as some elements of working in digital social spaces, such as recording the temporal nature of social media (p. 211) and copyright (pp. 211-212).

Following an introduction by the primary editor, Robert Coe, Part one, "Introduction to research methods and methodologies in education", includes chapters on the nature of empirical research (Chapter 2) and finding one's theoretical positioning (Chapter 3). Coe's treatment of the nature of paradigms (Chapter 2) is frank and straightforward, with a section dedicated to how researchers can approach various ways of dealing with different epistemological approaches to research. In the next chapter, Waring addresses the complex topic of finding one's theoretical positioning, endeavoring to disentangle concepts that perplex novice and emerging researchers, such as the differences between ontology and epistemology, or between methods and methodology, providing a foundation for deeper in-class discussion, for example.

Part two, "Basic principles and practice in conducting research" covers four chapters, including the design of empirical research (Chapter 4), planning one's research project (Chapter 5), inference and interpretation in research (Chapter 6) and research ethics (Chapter 7). The overall approach is pragmatic and highly digestible. There is an emphasis on making sense of key concepts and focusing on practical elements of planning and designing a research project. Ashley's treatment of how to plan a research project (Chapter 3), takes the reader through a step-by-step process, starting with choosing a topic, mapping out a research question, planning a literature review, anticipating ethical issues, gaining access to research participants and preparing for data collection and analysis, and planning writing. The sections that follow in managing time and resources and preparing a research plan give a nod towards the pragmatics of project

management as an effective approach to preparing one's research project.

A substantial amount of the book is found in Part three, "Research designs", which is comprised of 13 chapters on topics ranging from ethnographic research (Chapter 10) to longitudinal research (Chapter 15) to statistical and correlational techniques (Chapter 16). Higgins' examination of impact evaluation (Chapter 17) presents this timely topic in educational program evaluation research through a relevant case study that shows, rather than tells, what impact evaluation is. The result is a real-world examination of what impact evaluation is and how researchers can use it effectively.

Part four, "Data collection tools", includes seven chapters including innovative topics such as internet-based methods (Chapter 23), as well as more traditional ones such as questionnaires (Chapter 26). The topics of measurement and validity are also covered in this section. One particularly poignant contribution to this section is Sharpe and Benfield's chapter on Internet-based methods (Chapter 23). They wisely point out that, "the pervasive, integrative use of social and personal technology by learners means that the study of educational uses of technology needs to be seen within a wider, holistic context" (p. 197). Sharpe and Benfield go on to discuss the impact of the Internet on social science research and on researching learners' experiences of e-learning, digging deep into how to use online research methods to investigate learners' experiences. Chapters like this help the reader to understand the changing landscape of research methodology in twenty-first century educational contexts, challenging us to consider research in new and innovative ways that are just as rigorous as long-established approaches.

In Part five, "Analysis methods", there are 11 chapters, including the use of software in qualitative analysis (Chapter 28), as well as several chapters dedicated to various elements of quantitative analysis. Connolly's contribution on statistical analysis tools (Chapter 29) presents an overview of various software packages available to the researcher to conduct statistical analysis. He takes a straight forward and relatively plain language approach to a variety of tools including Excel, SPSS, Stata, and MLwiN, complete with screen shots of each one. He explains the benefits of each one in just enough detail, while maintaining a pragmatic stance that helps the reader make an informed choice about which software might best suit his or her needs.

Chapter authors are "drawn from a geographically diverse group of international academic experts" (Coe, p. 1), which is a double-edged sword. The international perspective brings a richness and depth to the work, exposing the reader to a variety of epistemological global perspectives. At the same time, this leaves the reader to contextualize certain topics on his or her own. For example, Hammersley's contribution on research ethics (Chapter 7) is necessarily general and broad. It is one of two new chapters added in the second edition. Be that as it may, researchers working in a Canadian context would certainly need to supplement their understanding of ethical practices and expectations for research involving human participants, particularly with regards to mandatory Tri-Council policies, for example. If there were one element of the text that could be bolstered it would be to offer more localized versions to particular audiences on certain topics, such as research ethics. Nevertheless, Hammersley's contribution, while broad, is thorough and well-informed.

The text is, overall, a thorough overview of research methodology in educational contexts. This book offers a refreshing alternative to texts that have become canonic in methodology courses, but may also have become weary, as they now fail to address some of the contemporary issues that Coe et al. cover skillfully over 38 chapters.

An additional benefit of this text is its companion website (https://study.sagepub.com/coe2e). Unlike other companion websites, this one does not require a set of complicated access codes. Instead, the companion site offers purposeful student resources in the form of extended readings and other clickable resources that align with and supplement each chapter.

In short, this book offers thorough, in-depth insights designed to help novice and emerging

researchers build their foundational understanding of research methodology in educational contexts. The book also offers insights for established researchers seeking to undertake newer and more innovative approaches to research design, such as Internet-based research. As such this book offers something worthwhile for researchers at every stage of his or her career.

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