

Review:

Joakim Öhlén

Janice M. Morse & Linda Niehaus (2009). Mixed Method Design: Principles and Procedures. Walnut Creek, CA, USA: Left Coast Press Inc.; 193 pages; ISBN 978-1-59874-298-5; US\$ 29.95 (paperback)

Key words:
methodology;
mixed-method
design; validity

Abstract: Mixed method design related to the use of a combination of methods, usually quantitative and qualitative, is increasingly used for the investigation of complex phenomena. This review discusses the book, "Mixed Method Design: Principles and Procedures," by Janice M. MORSE and Linda NIEHAUS. A distinctive feature of their approach is the consideration of mixed methods design out of a core and a supplemental component. In order to define these components they emphasize the overall conceptual direction of the project in terms of the theoretical drive, which is either inductive or deductive. The synchronization of the two components is either performed simultaneously or sequentially. This review particularly highlights reflections of MORSE and NIEHAUS's approach related to the significance of considering the risk of validity threats in mixed methods design, issues regarding building mixed method design on the binary of inductive versus deductive designs, issues related to "theory," and trends in methodological development such as a tendency to focus on generic qualitative research.

Table of Contents

- [1. Introduction](#)
- [2. The Mixed Method Approach](#)
- [3. Organization of the Book](#)
- [4. Reflections](#)
 - [4.1 Highlighting risk of validity threats](#)
 - [4.2 Building on binaries](#)
 - [4.3 Practicalities and underscoring clarification of theoretical perspectives](#)
 - [4.4 The specific MMD approach in relation to current trends in qualitative research](#)
- [5. Conclusion](#)

[References](#)

[Author](#)

[Citation](#)

1. Introduction

The development of mixed method design (MMD) related to the use of a combination of methods, usually quantitative and qualitative, is both old and new. On the one hand it seems there is a long, recognizable tradition of researchers utilizing different sources of data and methods for data collection and analysis; on the other, the concept of mixed method design has only developed in recent decades. As a result, we have seen several books published in the last few years; for example, ANDREW and HALCOMB (2009), BERGMAN (2008), and

CRESWELL (2007). Yet another was published in 2009: "Mixed Method Design: Principles and Procedures" by Janice MORSE and Linda NIEHAUS, which is under review here. We might ask, however—is there a need for another one? [1]

These authors build on the arguments of BRYMAN's (2008) analysis of published mixed method studies and interviews with researchers, leading to the identification of three issues to be resolved. The critical issues are: the research questions best answered by mixed method studies have not yet been identified, existing mixed method classification is incomplete, and there is a dearth of prescriptive texts and lack of consensus about how to perform mixed method research (p.98). MORSE and NIEHAUS (2009) obviously intend to contribute to changing this situation. In undertaking to write the book, they state their task is to, "... try [to] fill some of these gaps by explicating mixed method research design, primarily focusing on mixed method design that uses both qualitative and quantitative methods" (p.9). [2]

2. The Mixed Method Approach

MORSE and NIEHAUS

"define mixed methods as the incorporation of one or more methodological strategies or techniques drawn from a second method, into a single research study, in order to access some part of the phenomena of interest that cannot be accessed by the use of the first method alone" (p.9). [3]

They claim that in any combination of methods, one method component is to be regarded as a core, and combined with a supplemental method component. This is not to be equated with a major study and a sub-study, but rather a way for validity issues to surface. If an "added methodological strategy" follows a specific design and can be reported separately from a major study, the combination is not MMD but rather a *multi-method design*. The significant characteristic MORSE and NIEHAUS give to MMD is that the added component in some regard(s) is(are) incomplete and cannot be reported separately from the major study. Therefore, they consistently present MMD out of a core and a supplemental component and consider there to be possible threats to validity when incomplete methods are included in a study. [4]

In order to define these components, the *theoretical drive*, that is the overall conceptual direction of the project, needs to be identified from the research question. MORSE and NIEHAUS claim that this is either inductive or deductive. Further, the core and supplemental components have to be synchronized (which they label *pacing*) and either performed *simultaneously* or *sequentially*. The synchronization takes its starting point in the theoretical drive and needs of the study. In order to be "mixed," the two components need to be combined, of course. This is done at a specific *point of interface*, defined as "the position in which the core and supplement component meet during the conduct of the research" (p.25). In MMD reports, this is most often performed in the core results section and less often in the core data analysis section. [5]

Throughout the book, the notation system initially developed by Janice MORSE (1991) is used for visual representation of research procedures included in any MMD. The core component is written in upper case, while supplemental components are written in lower case, the pacing of the combined methods for data collection being symbolized by a + (simultaneously) and → (sequentially). For example, QUAL + *qual* means a simultaneous combination of two different qualitative methods and *qual* → QUANT means sequential combination of a core quantitative method supplemented with a qualitative. It could be noted that any combination of core and supplemental components is to be defined by the overall theoretical drive of the study. This is of particular help in not simply taking for granted that the chronological order necessarily implies a logical order when mixing methods; the authors consistently encourage readers to always (re-)consider the theoretical drive of the study. [6]

MORSE and NIEHAUS's approach has similarities with, as well as differences to, other conceptualizations of MMD. From the assumption that the (core and supplemental) components to be combined in a MMD are always dominant-subordinate (or primary-secondary) it follows that types of MMD assuming equal priority will not be possible. In this way their approach differs from, for example, the one put forward by CRESWELL, PLANO CLARK, GUTMAN and HANSON (2003). [7]

3. Organization of the Book

The first chapter starts by stipulating motives for using mixed method designs and suggests that well-tailored MMDs are simply stronger and will contribute highly relevant knowledge. Identifying and adhering to the logic of the complete method in the core component in a MMD is elucidated. Chapters 2 to 5 outline the logic, major components (theoretical drive, core and supplementary components, simultaneously and sequentially MMDs, point of interface), and varying sequences in different combinations of MMD. The different combinations of qualitative and quantitative, and simultaneous and sequential MMD are exemplified throughout these chapters with several practical and illustrative flow charts, which will serve as helpful tools for planning and decision making while working with MMDs. A major purpose of including such flow charts is to clearly illustrate the differences between the core and supplemental components, and the pacing and point of interface between them, as described in MORSE and NIEHAUS's mixed methods approach above. The opposed logic of inductive and deductive designs is also continually emphasized and illustrated. Furthermore, principles are frequently highlighted and conceptualized using the specific terminology characterizing the authors' approach. Chapter 6, for example, is dedicated to sampling issues in MMD and particularly emphasizes differences between the principles of qualitative inductive sampling and quantitative deductive sampling in terms of representativity of phenomena versus populations. [8]

The last four chapters elaborate on planning and conducting mixed method research. Chapter 7 focuses on overall guidelines for planning mixed method projects, while Chapters 8 and 9 focus on qualitatively driven and quantitatively

driven MMD respectively. Finally, Chapter 10 deals with series of mixed methods studies and other types of complex MMD. In these chapters, methods for data collection and analysis are described with accentuation on how to handle possible threats to validity while combining methods. Some illustrative examples of reported MMD studies are included. [9]

Of the included appendices, the first provides a useful glossary of MMD vocabulary, which should be of value to students, for example. Another gives guidelines for the assessment of mixed method publications, while the last one provides practical advice for building up methodological search filters for data base searches of mixed method studies. [10]

4. Reflections

The approach taken by MORSE and NIEHAUS on MMD is relevant and significant. I find the book highly practical, with useful instructions to the reader. The book pushed me to reflect a great deal on MMDs and is therefore not only instructive but also stimulates critical reflection. In the following section, I begin by evaluating the significance of considering risk of validity threats as the locus of MMD, thereafter posing questions regarding building MMD on the binary of inductive versus deductive designs. Further I will highlight issues related to "theory" and suggest putting MMD in perspective related to current methodological developments such as focusing generic qualitative research. [11]

4.1 Highlighting risk of validity threats

The development of MMD as a continuation and further development of simpler forms of triangulation in research designs is significant for raising quality in research. Adding an extra method can often contribute to enhancing results with richer data and more significant results. Nevertheless, it could equally foil the validity of such results. Sampling principles are very often the needle's eye in any type of research. Since qualitative and quantitative methods generally adhere to separate sampling principles, validity issues are often inherent when a different method is added to a study primarily designed out of qualitative or quantitative principles. For this reason I found the book by MORSE and NIEHAUS valuable in developing MMD out of risk of validity threats. Careful considerations should be given to interpreting reported frequencies and measured levels in a purposeful sample as part of a qualitative design, as well as to analyzing limited qualitative data gathered as a minor part of a quantitative study. In such cases, the suggested methodology and practical guidelines by MORSE and NIEHAUS are both thorough and instructive. [12]

It might be useful to bear in mind that the book focuses on combining methods where one component is not (and for different reasons cannot be) complete. Hence, the use of multi-methods (where the combined methods are complete respectively) or the combination of two or more methods in a larger project or research program will be designs of other kinds than MMD. Nevertheless, I do suggest keeping the logic of MMD according to MORSE and NIEHAUS in mind

when designing studies in a larger project. Since research is seldom enacted as the ideals prescribe, any limitation influencing validity needs to be considered. [13]

4.2 Building on binaries

MORSE and NIEHAUS build their methodological theory pertaining to MMD on the assumption that any research design is either inductive or deductive, and therefore a binary conception. Other binaries frequently iterated by MORSE and NIEHAUS are qualitative versus quantitative and simultaneously versus sequentially. Scientific discourses often do build on this assumption but weaknesses related to the use of binaries in terms of tendencies to oversimplify with lack of nuance have been displayed in, for example, the field of nursing (THORNE, HENDERSON, McPHERSON & PESUT, 2004). Even if the idea of inductive versus deductive designs is commonly held, the concept of abduction has been re-introduced. In grounded theory literature, for example, the often held assumption of research design as purely inductive has been questioned with a logic suggested to be entirely abductive in nature. Although abduction could be regarded as a combination of induction and deduction, it is put forward as something totally different (e.g., REICHERTZ, 2009). Thus, I am not convinced by MORSE and NIEHAUS that the method components combined in MMD are always either inductive or deductive. One might question whether there are purely inductive or deductive forms of conclusion at all. For me, then, the issue is raised as to what might be left out in their binary approach. [14]

4.3 Practicalities and underscoring clarification of theoretical perspectives

The practical suggestions and flow charts with check lists might give the impression that the book is based on a pragmatic rationale for MMD: what works and is useful, and what could be accomplished. However, according to MORSE and NIEHAUS, this is not the underlying main argument for designing mixed method studies. Instead, the essential consideration is to build on the theoretical drive of the study. At the same time, the chief explanation of this theoretical drive focuses on the above mentioned inductive versus deductive forms of conclusions. I would have liked to have seen the authors elaborate on considering (developing) the theoretical lens (or framework) for the study and allowing this to influence the design in multifaceted ways. The inclusion of different types of data or methods for analyses could then be justified by means of the clarified theoretical lens. This might be implied in the book but I believe could have been made explicit. Building "theory" on a binary construct could be particularly fragile inasmuch as "theory" in recent decades has been deconstructed and should not be taken for granted. [15]

4.4 The specific MMD approach in relation to current trends in qualitative research

Today, we find social and health sciences, for example, advocating the usage of a variety of research methods. In the case of qualitative research we also have left assumptions of (if there ever used to be researchers believing in) the

existence of only one qualitative method. Today the scientific community acknowledges and considers the application of a variety of methods such as phenomenologies, grounded theories, ethnographies, and so forth. I think MORSE and NIEHAUS's MMD approach could be regarded as a response to this kind of development inasmuch as I found the book assumes the existence of a range of specific methods with specific logic which require methodological integrity. Adding an incomplete methodological component might consequently be a tricky endeavor. [16]

Take, for example, an interpretive phenomenological field study with narrative interviews and participant observations. While the field work might recognize a need for a supplementary sub-study of discursive patterns in conversations taking place in the same field, the videotaped data and discursive analysis might illuminate the findings of the main interpretive phenomenological study. Referring back to MORSE and NIEHAUS's MMD, such an additional method could be regarded as part of an MMD reported with the main study. In this case, the considerations of MORSE and NIEHAUS would be valuable in producing valid results. However, I could also consider conceptualizing such an added component as part of the interpretative phenomenological design since phenomenology is a perspective for investigation of complexities which might require data and methods of different kinds (e.g., BERNDTSSON, CLAESSION, FRIBERG & ÖHLÉN, 2007). Adhering to phenomenological methodology might therefore be more instructive and of assistance in maintaining methodological integrity. [17]

For this reason I am not fully convinced of the merit in adhering to MMD, which in the above example would be annotated QUAL → qual. Perhaps an alternative would be to develop the project's theoretical lens and interpretative phenomenological design to include the main study component as well as the supplemental component. Similarly, classical grounded theory designs and ethnographic designs could encompass a variety of data types, which in both these designs would give them clearer delineation by their respective meta-theories, knowledge interest, methods for analysis, and considerations for maintaining validity. Thus, I suggest considering the significance of returning to fundamental principles of qualitative research (ATKINSON, 2005). [18]

An interesting qualitative methodological development in the applied health disciplines is THORNE's (2008) interpretive description design, which draws on a variety of theoretical and methodological resources to perform generic qualitative analysis aimed at conceiving, designing, and implementing clinically applicable research. Her proposed design provides an umbrella for developing the relevant specific methods in relation to the specific theoretical lens for individual studies and therefore constitutes a thorough methodology for combining qualitative methods. Moreover, in the field of applied health, it is important to relate research designs not only to the generation of knowledge *per se*, but also to its clinical application. This is particularly important from the perspective of European research politics linking research, education, and innovation in terms of the knowledge triangle. MORSE and NIEHAUS exclude such aspects in their book on

MMD but caused me to reflect on whether methodological developments in the so-called qualitative and quantitative traditions will inform the further development of MMD. [19]

5. Conclusion

In research, the process of acquiring knowledge, theorizing about complexities, and understanding the impact of complex interventions simply requires a variety of methods to be employed. With their new book, MORSE and NIEHAUS make a significant contribution to the field in underscoring the significance of designing mixed method studies out of theoretical logic and principles for maintaining validity. At the same time, the book is practical and pedagogical and I would highly recommend it as reading material for students at master and doctoral levels. Nevertheless, building the methodology on the binaries deductive versus inductive and qualitative versus quantitative as well as expanding MMD to a range of methodological combinations might not hold water. What about significant "theoretical drives" of other kinds than the deductive versus inductive emphasized by MORSE and NIEHAUS? [20]

I doubt that conceptualizing the inclusion of an extra component in a qualitative design in terms of MMD always adds clarification. The usefulness of MMD methodology is more obvious when disparate knowledge interests are combined, such as when instruments for measurement are combined with narrative interviews or when qualitative and quantitative sampling principles collide. Moreover there is a point in not simplifying things by mainly using MMD to refer to the combination of qualitative and quantitative methods. [21]

References

- Andrew, Sharon & Halcomb, Elizabeth J. (Eds.) (2009). *Mixed methods research for nursing and the health sciences*. Chichester, UK: Wiley-Blackwell.
- Atkinson, Paul (2005). Qualitative research—Unity and diversity. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 6(3), Art. 26, <http://nbnresolving.de/urn:nbn:de:0114-fqs0503261>.
- Bergman, Manfred Max (2008). *Advances in mixed methods research*. London: Sage.
- Berndtsson, Inger; Claesson, Silwa; Friberg, Febe & Öhlén, Joakim (2007). Issues about thinking phenomenologically while doing phenomenology. *Journal of Phenomenological Psychology*, 38(2), 256-277.
- Bryman, Alan (2008). Why do researchers integrate/combine/mesh/blend/mix/merge/fuse quantitative and qualitative research?. In Manfred Max Bergman (Ed.), *Advances in mixed methods research* (pp.87-100). London: Sage.
- Creswell, John W. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Creswell, John W.; Plano Clark, Vicki L.; Gutmann, Michell L. & Hanson, William E. (2003). Advanced mixed methods research designs. In Abas Tashakkori & Charles Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp.209-240). Thousand Oaks, CA: Sage.
- Morse, Janice M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40(2), 120-123.

[Reichert, Jo](#) (2009). Abduction: The logic of discovery of grounded theory. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(1), Art. 13, <http://nbn-resolving.de/urn:nbn:de:0114-fqs1001135>.

Thorne, Sally (2008). *Interpretive description*. Walnut Creek, CA, USA: Left Coast.

Thorne, Sally E.; Henderson, Angela D.; McPherson, Gladys I. & Pesut, Barbara K. (2004). The problematic allure of the binary in nursing theoretical discourse. *Nursing Philosophy*, 5(3), 208-215.

Author

Joakim ÖHLÉN is a professor of nursing and chair of the committee for studies in health care sciences at the Sahlgrenska Academy at the University of Gothenburg. His research interest is in palliative care with a focus on communication. He has conducted research with a variety of methodological approaches and is especially experienced in phenomenological hermeneutics and narrative analysis. He is leader of a research program in palliative care and currently undertaking research on patients' quest for knowledge and understanding over time when receiving palliative care and a qualitative outcome study on communication in palliative care for patients with gastrointestinal cancer.

Contact:

Joakim Öhlén

Institute of Health and Care Sciences
Sahlgrenska Academy at the University of
Gothenburg
P.O.Box 457
SE-40530 Gothenburg, Sweden

Tel.: +46 31 7866075

Fax: +46 31 7862347

E-mail: joakim.ohlen@gu.se

URL:

http://www.caresci.gu.se/digitalAssets/1296/1296367_iPCPC_Research_Programme.pdf

Citation

Öhlén, Joakim (2010). Review: Janice M. Morse & Linda Niehaus (2009). Mixed Method Design: Principles and Procedures [21 paragraphs]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 12(1), Art.15, <http://nbn-resolving.de/urn:nbn:de:0114-fqs1101159>.