

*Editors' Introduction***Special Issue: Mixed Methods**

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How Mixed Methods Informs and Enhances Qualitative Research

Much has been written about the usefulness of mixed methods research approaches for addressing complex research needs; yet, high-quality examples are emergent. Recently, Donna Mertens used her final editorial space in the *Journal of Mixed Methods Research* to call for innovative thinking within communities of mixed methods researchers, saying: “business as usual will not lead to effective use of research to address wicked problems, problems for which time for solutions is running out” (2015, p. 5). She used the term *wicked problems* to describe complex research problems that “involve multiple interacting systems, are replete with social and institutional uncertainties, and for which only imperfect knowledge and about their nature and solutions exist” (Mertens, 2015, p. 3). We agree that mixed methods research, defined in this special issue as ‘studies in which qualitative and quantitative approaches are combined or integrated in some way,’ holds strong potential for contributing to better understanding of wicked problems. We further propose that the use of mixed methods for informing and enhancing qualitative research holds untapped potential, warranting further attention. To that end, this first of two

special issues in the *International Journal of Qualitative Methods* (IJQM), offers topics pertinent to mixed methods research that illustrate its use for informing and enhancing qualitative research addressing wicked problems.

Our initial impetus for these special issues germinated from our roles as co-chair (Poth) and keynote speaker (Onwuegbuzie) of the Advances in Qualitative Methods (AQM) conference held in Edmonton, Alberta in June 2013. Specifically, we saw a need to provide an opportunity for continuing conversations and disseminating work germane to the conference theme *Innovation matters in qualitative research: Mixed methods*. To our delight (and surprise), we received 70 submissions representing 20 countries across six continents relating to diverse topics across disciplines/fields (e.g., education, health, communication, evaluation, social services) in response to our call for abstracts for the special issue. To accommodate a greater number of articles, we expanded to include a second special issue. Nonetheless, following a rigorous review process, we were *still* faced with the difficult task of inviting only 20 authors to prepare manuscripts. After receiving the submissions, we sought three reviews for each manuscript as part of a triple-blind peer review process (i.e., authors blinded the manuscript and the peer reviewers and editor were not aware of author identification during the initial review process); it is noteworthy that for each manuscript at least one of the reviewers was a recognized mixed methods expert. We are proud to present the initial six manuscripts embodying the superb efforts of our authors who integrated the thoughtful suggestions from our reviewers.

The opening article—“Current Mixed Methods Practices in Qualitative Research: A Content Analysis of Leading Journals”—provides a significant perspective on which to launch this special issue about how mixed methods research is approached across six leading qualitative journals. Authors Archibald, Radil, Zhang, and Hanson discuss their findings via a content analysis of articles published between 2003 and 2014. An overall increase in number of mixed methods research articles each year was noted. Yet, only 1.79% ($n = 94$) of the 5,254 articles met their criteria for being considered mixed methods; 44 of these articles were subsequently categorized as theoretical articles and the remaining 50 articles were considered empirical articles. A key difference between the two types of articles was that authors of theoretical articles were statistically significantly more likely to provide a definition for mixed methods research than were those of empirical articles (39% vs. 16%), which we calculated as yielding an odds ratio of 3.31 (95% confidence interval = 1.25, 8.72). That is, authors of theoretical articles were more than three times more likely to provide a definition for mixed methods research than were authors of empirical articles. Further, theoretical articles were found to contribute to the field of mixed methods by providing recommendations related to methodological procedures and considerations for undertaking mixed methods research. In contrast, almost every empirical study (98%) involved mixing at the data interpretation stage; yet, only approximately one half the empirical articles explicitly self-identified as mixed methods research and none included mixed methods research questions. Taken together these findings, describing the recent status of mixed methods research within qualitative-focused publications, are important for informing the yet unrealized future of mixed methods research within these publications.

The next two empirical articles highlight novel understandings gleaned from using mixed methods research approaches within existing qualitative strategies of inquiry into wicked problems. Shannon-Baker explores culture shock through integrating arts-informed research, operationalized as inquiry in which art is an influential data source and accessible to the reader within a qualitative research study (Cole & Knowles, 2008). In her article, “But I Wanted to Appear Happy”: How Using Arts-Based and Mixed Methods Approaches Complicate Qualitatively Driven Research”, she advances the use of arts-informed research approaches in conjunction with qualitative methods for offering a more nuanced understanding of culture shock experienced by ten U.S. undergraduate students participating in a short-term study abroad program. The integrated findings from a concurrent mixed methods research design illuminate the unique contributions of interactions with locals for alleviating students’ experiences of culture shock while abroad.

In the second empirical article, “Combining Qualitative and Quantitative Data Collection and Analysis Methods in Understanding Multiple Sclerosis Fatigue,” Turpin, Asano, and Finlayson explore strategies for management of Multiple Sclerosis fatigue using qualitative description with phenomenological overtones (Sandelowski, 2010). A key contribution of the integrated findings revealed understandings about the circumstances and factors shaping participants’ use of strategies for managing Multiple Sclerosis fatigue. These understandings were essential for informing evidence-based practice recommendations that are representative of the 31 Australian and U.S. participants. The authors credited the transdisciplinary nature of the three-member research team as being essential for ensuring inferences that were clinically meaningful and scientifically valid.

Another example emphasizing the impact of a transdisciplinary mixed methods research team on addressing wicked problems is afforded by the article “Applying a Transdisciplinary Mixed Methods Research Design to Explore Sustainable Diets in Rural South Africa”. Claasen, Covic, Idsardi, Sandham, Gildenhuis, and Lemke describe a conceptual framework using a case study example of ongoing research in the Vaalharts region, a rural setting in South Africa. The authors’ key message points to the need for transcending boundaries not only among discipline-specific research areas (e.g., nutrition, agriculture, economics, and behavioral, environmental, and social sciences) but also methodological-specific areas (i.e., qualitative and quantitative research) in order to generate comprehensive and meaningful evidence for sustainable diets research.

In the penultimate theoretical article, Rucks-Ahidiana and Bierbaum focused on integrating spatial and qualitative data. They suggest that new areas of inquiry can be pursued via leveraging analytics accessible through spatial data. The article, “Qualitative Spaces: Integrating Spatial Analysis for a Mixed Methods Approach”, contributes to understanding the untapped potential of spatial data by first tracing its evolution within qualitative research from early use of studies of social life in the 1890s (e.g., Booth, 1892; Riis, 1890) to more recent examples within urban contexts using social ecological approaches (e.g., Abbott, 1997; O’Connor, 2001). Subsequently, the authors illuminate distinctive understandings revealed by the integration of spatial data across three cases of social processes concerning social capital, immigration, and education.

The final theoretical article, “Methodological Diversity in Language Assessment Research: The Role of Mixed Methods in Classroom-Based Language Assessment Studies”, focuses on using mixed methods research to enrich the results and enhance the rigor of classroom-based language assessment investigations. Specifically, Tsushima advances the usefulness of mixed methods research for Classroom-Based Language Assessment Studies where a new form of assessment is implemented. The article closes with practical implications for researchers related to challenges that they might face with existing validation practices.

To conclude this issue, our closing editorial focuses on two interwoven themes across the manuscripts for informing and enhancing qualitative research; the need for further examples of innovative mixed methods research designs and transdisciplinary mixed methods research teams.

We are confident that this initial collection of articles provides an opportunity for our authors to share their innovative solutions from global perspectives to wicked problems with our readers. As guest co-editors, we are indebted to the authors and peer reviewers of manuscripts for their willingness to contribute to this important endeavor.

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