Triangulation 2.0

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Abstract

A third way of conceptualizing mixed methods research is proposed, one based on critical interpretive methodologies.

Keywords

paradigm, incompatibility thesis, pragmatism, crystallization

My thesis is simple and direct. Those of us in the mixed methods qualitative inquiry community need a new story line, one that does not confuse pragmatism for triangulation, and triangulation for mixed methods research (MMR; Fielding, 2009). A different third way is required, one that inspires generative politics and dialogic democracy and helps shape realistic utopian dreams. This is a third path based on interpretive methodologies that show citizens how to confront the obstacles to justice that shape their daily lives (Giddens, 2000). Mixed methods can and should be used in the service of transformative social justice projects (Hesse-Biber, 2010; Mertens, 2011; Morse, 2011). Looking inward, the mixed methods discourse[1] needs a narrative that does not stumble over words such as *politics*, *pragmatism*, *paradigm*, *third moment*, *methodology*, and *triangulation*. We need a way out of the present.

But I hesitate even before I begin. I feel like I am on a razor's edge, slipping and sliding. On one hand, I have criticized the MMR movement (below), viewing it with some skepticism, perhaps uncritically linking it to naive postpositivism, audit cultures, neoliberal regimes, and the abuses associated with evidence-based movement in the United States.

On the other hand, I come to this discourse from the international community of qualitative inquiry. And I am impressed. There is an energy here—new handbooks, journals, annual conferences. This energy can be matched by only a few other interpretive communities and I am not being generous here.

Contesting Mixed Methods Experimentalism

Howe (2004) observes that in the United States, the National Research Council (NRC) found a place for qualitative methods in mixed methods experimental designs. In such designs,

* I take this title from Berman (2011).

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qualitative methods may be ''employed either singly or in combination with quantitative methods, including the use of randomized experimental designs'' (Howe, 2004, p. 49; see also Plano Clark & Creswell, 2008; Hesse-Biber & Leavy, 2008). As conceptualized by the NRC, mixed methods are direct descendants of classical experimentalism and the triangulation movement of the 1970s (Denzin, 1989b). They presume a methodological hierarchy, with quantitative methods at the top, relegating qualitative methods to ''a largely auxiliary role in pursuit of the *technocratic* aim of accumulating knowledge of 'what works''' (Howe, 2004, pp. 53-54).

Within the paradigm of dialogue discourse (Lincoln, 2010), the incompatibility thesis disputes the key claim of the mixed methods movement, namely, that methods and perspectives can be unproblematically combined. This thesis recalls the paradigm wars of the 1980s and argues that ''compatibility between quantitative and qualitative methods is impossible due to incompatibility of the paradigms that underlie the methods'' (Teddlie & Tashakkori, 2003a, 2003b, pp. 14-15). Others disagree with this conclusion, and some contend that the incompatibility thesis has been largely discredited because researchers have demonstrated that it is possible to successfully use a mixed methods approach. This is when triangulation makes its entrance, including its recent iterations (Berman, 2011).

There are several possible responses to the question of paradigm compatibility, including the four identified by Teddlie and Tashakkori (2003b): that is, the complementary, single-paradigm, dialectical, and multiple-paradigm models. There is by no means a consensus on these issues. Morse and Niehaus (2009) warn that ad hoc mixing of methods can be a serious threat to validity. Pragmatists and transformative emancipatory action researchers posit a dialectical model, working back and forth between a variety of tension points, such as etic–emic, value neutrality–value committed. Others (Lather, 1993) and Guba and Lincoln (2005) deconstruct validity as an operative term. Hesse-Biber and Leavy's (2008) emphasis on emergent methods pushes and blurs the methodological boundaries between quantitative and qualitative methods.[2] Their model seeks to recover subjugated knowledges hidden from everyday view.

Early in its history, the traditional mixed methods movement took qualitative methods out of their natural home, which is within the critical, interpretive framework (Howe, 2004, p. 54; but see Teddlie & Tashakkori, 2003, p. 15, 2011). This move divided inquiry into dichotomous categories, exploration versus confirmation. Qualitative work was assigned to the first category, quantitative research to the second (Teddlie & Tashakkori, 2003). Plano Clark, Creswell, O'Neil Green, and Shope (2008) define MMR ''as a design for collecting, analyzing, and mixing both quantitative and qualitative data in a study in order to understand a research problem'' (p. 364).[3] Like the classic experimental model, this stance excluded stakeholders from dialogue and active participation in the research process. This weakens its transformative, democratic, and dialogical dimensions and decreases the likelihood that the previously silenced voices will be heard (Howe, 2004, pp. 56-57; Mertens, 2011).

Howe cautions that it is not just the

> ''methodological fundamentalists'' who have bought into [this] approach. A sizeable number of rather influential . . . educational researchers . . . have also signed on. This might be a compromise to the current political climate; it might be a backlash against the perceived excesses of postmodernism; it might be both. It is an ominous development, whatever the explanation. (Howe, 2004, p. 57, p. 438; Lincoln, 2010, p. 7)

The hybrid, transformative dialogical model, in contrast, directly confronts these criticisms.

Mixed Methods Research[4]

Creswell (2011) and Teddlie and Tashakkori (2011) examine controversies and issues in MMR, or the third methodological moment. Although there is considerable debate over what constitutes

MMR, these authors suggest that it is inquiry that focuses on collecting, analyzing, and mixing both quantitative and qualitative empirical materials in a single study or a series of studies. Creswell identifies key controversies and questions being raised about MMR. These issues include (a) disagreements over definitions, (b) just what is a mixed methods study, (c) paradigm debates—that is, whether there are incommensurable and incompatible (and irresolvable) differences between paradigms, (d) how the current conversation privileges postpositivism, and (e) what value is added by mixed methods. In giving voice to these controversies, Creswell creates the space for a reassessment of the mixed methods movement and where it is taking the interpretive community.

Teddlie and Tashakkori (and Creswell) offer a history of this field, noting overlaps with recent developments in emergent methods (Hesse-Biber & Leavy, 2008), parallels with earlier arguments for triangulation (Denzin, 1970; Fielding, 2009; Flick, 2007; Greene, 2007),[5] and discourse in the fields of evaluation, nursing, education, disability studies, and sociology. For them, MMR is characterized by eclecticism, paradigm pluralism, a celebration of diversity, a rejection of dichotomies, an iterative approach to inquiry, an emphasis on the research question, and a focus on signature MMR design and analysis strategies (QUAL/QUAN): parallel, sequential, multilevel, sequential mixed, and so on.

Of course qualitative research is inherently multimethod in focus (Flick, 2007). In its original forms (Denzin, 1970), triangulation referred only to the use of multiple forms of qualitative research methods, not the combination of quantitative and qualitative methods. It was also understood that each qualitative methodology—life story, case study, interviewing, ethnography, participant observation—rested on specific epistemological assumptions and each method had a complex disciplinary history. Hence, these interpretive methods could not be easily combined with one another.

The use of multiple methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomenon in question. Objective reality can never be captured. We only know a thing through its representations. Triangulation is not a tool or a strategy of validation but an alternative to validation (Flick, 2007). The combination of multiple methodological practices, empirical materials, perspectives, and observers in a single study is best understood as a strategy that adds rigor, breadth complexity, richness, and depth to any inquiry (see Flick, 2002, 2007).

There are multiple criticisms of MMR. We are 30 to 40 years deep into a multiple, mixed methods discourse, and we still can't define the method or be clear on its benefits. Proponents of the incompatibility and incommensurability theses contend that qualitative and quantitative methods rest on different paradigm assumptions and hence cannot be easily combined. Others find a pervasive postpositivist bias with the MMR discourse, noting the tendency to subordinate QUAL to QUAN. Some say that MMR designs are too expensive, and still some note that a superficial methodological bilingualism underlies the call for MMR. Other critics feel the discourse is tangled up in philosophical debate and that pragmatism is a way forward (Howe, 1988; Maxcy, 2003).

A Pragmatic Aside

The MMR links to the pragmatism of Dewey, James, Mead, and Peirce are problematic. Classic pragmatism is not a methodology per se. It is a doctrine of meaning, a theory of truth. It rests on the argument that the meaning of an event cannot be given in advance of experience. The focus is on the consequences and meanings of an action or event in a social situation. This concern goes beyond any given methodology or any problem-solving activity. That is the interpreter examines and inspects, and reflects on an action and its consequences. These meanings cannot be given in advance. Nor are they revealed by a given methodology. The MMR community does not seem to have a method for ascertaining meaning at this level. Basing an argument for mixed methods on this version of pragmatism seems misplaced.

Neo-pragmatists (Rorty, Habermas, West) extend the classic doctrine. They endorse a thoroughly interpretive, hermeneutic pragmatism that is explicitly antipositivist, antifoundational, and radically contextual. But this is not the pragmatism invoked by MMR proponents (see Teddlie & Tashakkori, 2011).

The compatibility thesis for the MMR community asserts that combining qualitative and quantitative methods is a good thing; that is, there is no incompatibility between QUAN and QUAL at the practical or epistemological levels. Under this reading, pragmatism rejects paradigm conflicts between QUAN and QUAL epistemologies. Pragmatism is thus read as a practical and applied research philosophy that supports mixed or multiple methods of social science inquiry (Maxcy, 2003, p. 85). An additional warrant for this is given by Howe (1988), who appeals to a ''what works,'' or practical consequences, version of pragmatism. This is a cheap version of William James's cash register pragmatism. But this version of what works is not the point. The pragmatist focus is on the consequences of action, not on combining methodologies. And here the MMR discourse is of little help.

It is one thing to endorse pluralism, or multiple frameworks (Schwandt, 2007), but it is quite another to build a social science on a what-works pragmatism. It is a mistake to forget about paradigm, epistemological, and methodological differences between and within QUAN/QUAL frameworks. These are differences that matter. As currently formulated, MMR offers few strategies for assessing the interpretive, contextual level of experience where meaning is created. Nor does it give a road map to those organic intellectuals (Gramsci) and critical analysts (Freire) who seek a prophetic pragmatism (West) that explicitly addresses social justice issues (West, 1995).

Paraphrasing Cornell West (1995), the moral aim of prophetic pragmatism, pragmatism's new third way, is always political. It requires an incessant focus on the consequences of interpretive activity for political ends, understanding that the consequences of inquiry are always already moral and political.

Multigenre Crystallization

Laura Ellingson (2009, 2011) moves the conversation to another level. She offers a continuum—right, left, middle—approach to the analysis and representation of qualitative materials. On the far right, the space of MMR, there is an emphasis on valid, reliable knowledge generated by neutral researchers using rigorous methods to generate Truth. This is the space of postpositivism, eclecticism, and the new MMR initiatives. At the left end of the continuum, researchers value humanistic, openly subjective knowledge—autoethnography, poetry, video, stories, narratives, photography, drama, painting. Truths are multiple, ambiguous, literary standards of truthfulness replacing those of positivism. In the middle is work that offers description, exposition, analysis, insight, and theory, blending art and science and often transcending these categories. First-person voice is used; scholars seek intimate familiarity with their textual materials; grounded theory and multiple methods may be employed.

Multigenre crystallization is Ellingson's (2009) postmodern-influenced approach to triangulation. She disputes a narrow conception of triangulation. She endorses a postmodern form, asserting that the central image for qualitative inquiry is the crystal, multiple lenses not the triangle. She sees crystallization as embodying an energizing, unruly discourse, drawing raw energy from artful science and scientific artwork. Mixed-genre texts in the postexperimental moment have more than three sides. Like crystals, Eisenstein's montage, the jazz solo, or the pieces in a quilt, the mixed-genre text combines

> symmetry and substance with an infinite variety of shapes, substances, transmutations . . . crystals grow, change, alter . . . crystals are prisms that reflect externalities and refract within

themselves, creating different colors, patterns, arrays, casting off in different directions. (Richardson, 2000, p. 934)

Crystallization combines multiple forms of analysis and genres of representation into a coherent text. Crystallization seeks to produce thick, complex interpretation. It uses more than one writing genre. It deploys multiple forms of analysis, reflexively embeds the researcher's self in the inquiry process and eschews positivist claims to objectivity. Crystallization features two primary types: those integrated into a single text and those involving multiple textual formations. Guerilla, or critical, scholarship moves back and forth across both types of crystallization and engages different methods, genres, paradigms, and ideologies, always in the name of social justice. Ellingson's version of triangulation is consistent with a new third way of moving into and through methods, politics, and inquiry.

History, Politics, and Paradigms

To better understand where we are today, to better grasp current criticisms, it is useful to return to the so-called paradigm wars of the 1980s, which resulted in the serious crippling of quantitative research in education. Critical pedagogy, critical theorists, and feminist analyses fostered struggles for power and cultural capital for the poor, non-Whites, women, and gays (Gage, 1989). If we do not work back through this history, we are in danger of repeating its mistakes.

Teddlie and Tashakkori expand the time frame of the 1980s war. For them, there have been at least three paradigm wars, or periods of conflict: (a) the postpositivist–constructivist war against positivism (1970-1990), (b) the conflict between competing postpositivist, constructivist, and critical theory paradigms (1990-2005); and (c) the current conflict between evidence-based methodologists and the mixed methods, interpretive, and critical theory schools (2005-present).[6]

Guba's (1990a, 1990b) ''paradigm dialog'' signaled an end to the 1980s wars. Postpositivists, constructivists, and critical theorists talked to one another, working through issues connected to ethics, field studies, praxis, criteria, knowledge accumulation, truth, significance, graduate training, values, and politics. By the early 1990s, there was an explosion of published works on qualitative research; handbooks and new journals appeared. Special-interest groups committed to particular paradigms appeared, and some had their own journals.[7]

The second paradigm conflict occurred within the mixed methods community, and involved disputes ''between individuals convinced of the ''paradigm purity'' of their own position (Teddlie & Tashakkori, 2003b, p. 7). Purists extended and repeated the argument that quantitative and qualitative methods cannot be combined because of the differences between their underlying paradigm assumptions. On the methodological front, the incompatibility thesis was challenged by those who invoked triangulation as a way of combining multiple methods to study the same phenomenon (Teddlie & Tashakkori, 2003b). Thus was ushered in a new round of arguments and debates over paradigm superiority.

As noted above, a soft, apolitical, pragmatic paradigm emerged in the post-1990s period. Suddenly, quantitative and qualitative methods became compatible and researchers could use both in their empirical inquiries (Teddlie & Tashakkori, 2003b, p. 7). Proponents made appeals to a what works pragmatic argument, contending that ''no incompatibility between quantitative and qualitative methods exists at either the level of practice or that of epistemology . . . there are thus no good reasons for educational researchers to fear forging ahead with 'what works'' (Howe, 1988, p. 16). Of course, what works is more than an empirical question. It involves the politics of evidence.

This is the space that evidence-based research entered. This is the battleground of war number three, ''the current upheaval and argument about 'scientific' research in the scholarly world

of education'' (Scheurich & Clark, 2006, p. 401). Enter Teddlie and Tashakkori's third moment: Mixed methods and evidence-based inquiry meet one another in a soft center. C. Wright Mills (1959) would say this is a space for abstracted empiricism. Inquiry is cut off from politics. Biography and history recede into the background. Technological rationality prevails.

Bricoleurs

The methodological *bricoleur* is adept at performing a large number of diverse tasks, ranging from interviewing to intensive self-reflection and introspection. The theoretical *bricoleur* reads widely and is knowledgeable of the many interpretive paradigms (feminism, Marxism, cultural studies, constructivism, queer theory) that can be brought to any particular problem. He or she may not, however, feel that paradigms can be mingled, or synthesized. That is paradigms as overarching philosophical systems denoting particular ontologies, epistemologies, and methodologies cannot be easily moved between. They represent belief systems that attach the user to a particular worldview. Perspectives, in contrast, are less well-developed systems and can be more easily moved between. The researcher-as-bricoleur-theorist works between and within competing and overlapping perspectives and paradigms.

The interpretive bricoleur understands that research is an interactive process shaped by the personal history, biography, gender, social class, race, and ethnicity of the people in the setting. Critical bricoleurs stress the dialectical and hermeneutic nature of interdisciplinary inquiry, knowing that the boundaries between traditional disciplines no longer hold (Kincheloe, 2001, p. 683). The political bricoleur knows that science is power, for all research findings have political implications. There is no value-free science. A civic social science based on a politics of hope is sought (Lincoln, 1999). The gendered, narrative bricoleur also knows that researchers all tell stories about the worlds they have studied. Thus, the narratives or stories scientists tell are accounts couched and framed within specific storytelling traditions, often defined as paradigms (e.g., positivism, postpositivism, constructivism).

The product of the interpretive bricoleur's labor is a complex, quiltlike bricolage, a reflexive collage or montage, a set of fluid, interconnected images and representations. This interpretive structure is like a quilt, a performance text, a sequence of representations connecting the parts to the whole.

In Conclusion

So here at the end we revisit the challenge of triangulation 2.0. The term has been used, abused, and misinterpreted. Can we retake the discourse surrounding this word and retrofit it to a postmodern world where meanings and politics are refracted off of the edges of crystals, not triangles? Can we train methodological bricoleurs who seek new third ways through and around obstacles to social justice in a neoliberal world? Can we create a discourse that does not play word games with itself, in methods-centric ways (Hesse-Biber, 2010)? Can we chart a way out of the present? Can we have a moratorium on mixed methods talk about designs and typologies and get back to the task at hand, which is changing the world?

The bricoleur is in the business of changing the world for social justice purposes. We must act as catalysts for social change. History, change, and transformation belong to those who care, who remember, who struggle to re-remember, who turn history back against itself, who expose the cracks and contradictions in history itself (Smith, 2004). The goal is to provoke change, to create texts that play across gender and race, utopian texts that involve readers and audiences in this passion, moving them to action.

Qualitative research scholars have an obligation to change the world, to engage in ethical work that makes a positive difference. We are challenged to confront the facts of injustice, to make the injustices of history visible and hence open to change and transformation. We write always against history, offering reactions to, not records of, history. As critical scholars, our task is to make history present, to make the future present, to undo the present. Ethnographic theater, ethnodramas, performance texts, and mixed methods inquiries help us make the murky, tragic facts of history visible. Autoethnography and performance ethnography bring the past and the future into the present, allowing us to push against the present, to engage pedagogies of hope.

In the *Sociological Imagination*, C. Wright Mills challenged us to work from biography to history. He asked us to begin with lived experience but to anchor experience in its historical moment. He invited us to see ourselves as universal singulars, as persons who universalize in our particular lives this concrete historical moment.

Regrettably, this biographically present person disappeared from too much of the MMR discourse. But there is hope, a space for a new beginning. Hopefully, in the next decade there will be renewed efforts to embed all our interpretive methodologies in expanded social justice discourses. These discourses will interrogate the ways in which power, ethics, and social justice intersect. Multiple models of justice will be explored. Feminist, communitarian ethics will be informed by the empowerment ethics of specific indigenous and oppressed peoples. Indigenous and nonindigenous scholars will refine models of restorative justice that heal the wounds of globalization. They will develop new methodologies that better address the social and economic concerns of oppressed persons.

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*I take this title from Berman (2011).

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Notes

1. This is not a uniparadigmatic discourse, as Mertens (2011), Hesse-Biber (2010), Creswell (2011), and Teddlie and Tashakori (2011) indicate.
2. Their emergent model focuses on methods that break out of traditional frameworks, methods that exploit new technologies and innovations, this is a process model that works between politics, epistemology, theory, and methodology.
3. They identify four major mixed methods designs: triangulation, embedded, explanatory, and exploratory (p. 371).

4. The following section reworks material in Denzin and Lincoln (2011, pp. 246-247, p. 565).
5. Denzin's call for triangulation involved combining multiple qualitative methodologies—life story, case study, interviewing, participant observation, ethnography. It did not include combining qualitative and quantitative methodologies.
6. They contend that our second moment, the Golden Age (1950-1970) was marked by the debunking of positivism, the emergence of postpositivism, and the development of designs which used mixed quantitative and qualitative methods. Full-scale conflict developed throughout the 1970-1990 period, the time of the first ''paradigm war.''
7. Conflict broke out between the many different empowerment pedagogies: feminist, antiracist, radical, Freirean, liberation theology, postmodernists, poststructuralists, cultural studies, and so on.

References

Berman, A. (2011, February 7). Obama: Triangulation 2.0? *The Nation,* pp. 22-26.

Creswell, J. W. (2011). Controversies in mixed methods research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (4th ed., pp. 269-284). Thousand Oaks, CA: SAGE.

Denzin, N. K. (1970). *The research act*. Chicago, IL: Aldine.

Denzin, N. K. (2010). *The qualitative manifesto: A call to arms*. Walnut Creek, CA: Left Coast Press.Denzin, N. K., & Lincoln, Y. S. (2011). Editorial: Introductions to Parts 3 and 5. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (4th ed., pp. 243-250, pp. 563-568). Thousand Oaks, CA: SAGE.

Ellingson, L. L. (2009). *Engaging crystallization in qualitative research.* Thousand Oaks, CA: SAGE.

Ellingson, L. L. (2011). Analysis and representation across the continuum. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (4th ed., pp. 595-610). Thousand Oaks, CA: SAGE.

Fielding, N. G. (2009). Going out on a limb: Postmodernism and multiple method research. *Current Sociology, 3*, 427-447.

Flick, U. (2007). *Designing qualitative research*. London, England: SAGE.

Gage, N. L. (1989). The paradigm wars and their aftermath: A ''historical'' sketch of research and teaching since 1989. *Educational Researcher, 18*(7), 4-10.

Giddens, A. (2000). *The third way and its critics*. Cambridge, England: Polity Press.

Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco, CA: Jossey-Bass.

Guba, E. G. (1990a). The alternative paradigm dialog. In E. G. Guba (Ed.), *The paradigm dialog* (pp. 17-30). Newbury Park, CA: SAGE.

Guba, E. G. (1990b). Carrying on the dialog. In E. G. Guba (Ed.), *The paradigm dialog* (pp. 368-378). Newbury Park, CA: SAGE.

Guba, E., & Lincoln, Y.S. (2005). *Paradigmatic controversies, and emerging confluences*. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (3rd ed., pp. 191-216). Thousand Oaks, CA: SAGE.

Hesse-Biber, S. N. (2010). *Mixed methods research: Merging theory with method*. New York, NY: Guilford Press.

Hesse-Biber, S. N., & Leavy, P. (2008). Introduction: Pushing on the methodological boundaries: The growing need for emergent methods within and across the disciplines. In S. N. Hesse-Biber & P. Leavy (Eds.), *Handbook of emergent methods* (pp. 1-15). New York, NY: Guilford Press.

Howe, K. R. (1988). Against the quantitative-qualitative incompatibility thesis or dogmas die hard. *Educational Researcher, 17*, 10-16.

Howe, K. R. (2004). A critique of experimentalism. *Qualitative Inquiry, 10*, 42-61.

Kincheloe, J. L. (2001). Describing the bricolage: Conceptualizing a new rigor in qualitative research. *Qualitative Inquiry, 7*, 679-692.

Lather, P. 2007. *Getting Lost: Feminist Efforts toward a Double(d)* Science. Albany: SUNY Press.

Lincoln, Y. S. (2010). What a long, strange trip it's been . . . 25 years of qualitative and new paradigm research. *Qualitative Inquiry, 16*, 3-9.

Maxcy, S. J. (2003). Pragmatic threads in mixed methods research in the social science: The search for multiple models of inquiry and the end of the philosophy of formalism. In A. Tashakkori & C. Teddlie

(Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 51-90). Thousand Oaks, CA: SAGE.

Mertens, D. M. (2011). Mixed methods as tools for social change. *Journal of Mixed Methods Research, 5*, 195-197. doi:10.1177/1586898114518095

Mills, C. W. (1959). *The sociological imagination*. New York, NY: Oxford University Press.

Morse, J. M. (2011). What is qualitative health research? In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (4th ed., pp. 401-414). Thousand Oaks, CA: SAGE.

Morse, J. M., & Niehaus, L. (2009). *Mixed method design: Principles and procedures*. Walnut Creek, CA: Left Coast Press.

Plano Clark, V. L., & Creswell, J. W. (2008). Introduction. In V. L. Plano Clark & J. W. Creswell (Eds.), *The mixed methods reader* (pp. xv -xviii). Thousand Oaks: SAGE.

Plano Clark, V. L., Creswell, J. W., O'Neil Green, D., & Shope, R. J. (2008). Mixing quantitative and qualitative approaches: An introduction to emergent mixed methods research. In S. N. Hesse-Biber & P. Leavy (Eds.), *Handbook of emergent methods* (pp. 363-387). New York, NY: Guilford Press.

Richardson, L. (2000). *Writing: A method of inquiry*. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 923-948). Thousand Oaks, CA: SAGE.

Scheurich, J. J., & Clark, M. C. (2006). Qualitative studies in education at the beginning of the twenty-first century. *International Journal of Qualitative Studies in Education, 19*, 401.

Schwandt, T. A. (2007). *Sage dictionary of qualitative inquiry* (3rd ed.). Thousand Oaks, CA: SAGE.

Smith, A. D. (2004). *House arrest and piano*. New York, NY: Anchor.

Teddlie, C., & Tashakkori, A. (2003a). Preface. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. ix-xv). Thousand Oaks, CA: SAGE.

Teddlie, C., & Tashakkori, A. (2003b). Major issues and controversies in the use of mixed methods in the social and behavioral sciences. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 3-50). Thousand Oaks, CA: SAGE.

Teddlie, C., & Tashakkori, A. (2011). Mixed methods research: Contemporary issues in an emerging field. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (4th ed., pp. 285-300). Thousand Oaks, CA: SAGE.

West, C. (1995). Theory, pragmatisms, and politics. In R. Hollinger & D. Depew (Eds.), *Pragmatism: From progressivism to postmodernism* (pp. 314-326). Westport, CT: Praeger.