Simultaneous and Sequential Qualitative Mixed Method Designs

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Abstract

Mixed methods, defined as one complete method (as the core project) plus a different simultaneous and sequential supplemental strategy, have been well explicated for combining the most difficult designs—that is, qualitative and quantitative methods. However, experts in qualitative inquiry have relatively ignored the issues that occur while describing qualitative simultaneous and sequential designs in which both components are qualitative. In this article, the author argues that qualitative mixed method designs introduce many of the incompatibility problems of mixed method design that use qualitative and quantitative components. Various qualitatively driven mixed method designs are presented. Then, using an armchair walkthrough, QUAL-*qual* designs are contextualized within a hypothetical project of breaking bad news, and several examples of QUAL-*qual* mixed method designs are discussed.

Keywords

qualitative mixed methods, mixed methods design

The escalation in the use of *mixed method designs* over the past 15 years has resulted in discussions that have centered primarily on the mixing of cross-paradigmatic methods—that is, of various combinations of qualitative and quantitative methods—to the extent that it makes us ask the following question: When we are referring to mixed method design, are we referring only to combining qualitative and quantitative methods, or can we combine two qualitative or two quantitative methods under the rubric of *mixed methods*? Although some people insist that mixed methods refers only to research that uses both qualitative and quantitative methods, other researchers concede that mixed methods is a term that may apply in within-paradigm research.

In this article, I argue that using a complete method with a supplemental component, both from the qualitative paradigm, is a legitimate form of mixed method design.[1] I explore the issues involved with mixing two qualitative methods. When using two qualitative methods, the technical difficulties in mixing textual and numerical data have been removed, but important issues remain in the simultaneous and sequential qualitative mixed method designs that warrant exploration and discussion.

I will begin this article by presenting issues in mixed method designs in general and then proceed by presenting various combinations of qualitative mixed methods as armchair walkthroughs. That is, rather than present actual studies that have used qualitative mixed methods design, I will present various qualitative research problems, with proposed solutions that illustrate the use of mixed methods for problems with specific characteristics.

What Is a Mixed Method Design?

Unfortunately, at this time, there is no real consensus regarding mixed method design—not even about what it is. Leech (2010) notes that some authors define mixed methods as the combined use of qualitative and quantitative methods (e.g., Bryman & Creswell), whereas others agree mixed method design may be applied to the use of two methods within a paradigm (e.g., Morse & Greene); some consider mixed methods to be of use to two complete research projects within the same study, whereas others consider this the definition of a *multiple method study* (see Morse & Niehaus, 2009); yet others use the term *mixed* and *multiple methods* interchangeably. Here, I define a mixed method design as follows:

> Mixed method design consists of a complete method (i.e., the core component), plus one (or more) incomplete method(s) (i.e., the supplementary component[s])

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that cannot be published alone, within a single study. (Morse & Niehaus, 2009, p. 9)

In mixed methods, the supplementary component provides explanation or insight within the context of the core component, but for some reason the supplementary component cannot be interpreted or utilized alone. Perhaps this is because the supplementary project has an inadequate sample, or lacks saturation, or is simply too narrow to be of interest by itself. The important point is that it is not a complete project in itself and so is not publishable as a separate project.

What Are the Characteristics of a QUAL-*qual* Mixed Method Design?

The primary characteristic is that both the core component and the supplementary component have an inductive theoretical drive. That means that the project is exploratory descriptive, with a goal that may range from rich description to theory development. The core component (i.e., the complete method) may be classified as a standard qualitative method—for instance, as a grounded theory, an ethnography, discourse analysis, phenomenology, a study using some type of observational method or derived from the use of focus groups or semistructured interviews, and so forth. However, the supplementary component consists of research strategy(ies) that are used within another qualitative method (rather than a complete method as such), such as a particular style of interviews or an observational technique. The supplemental component may be paced simultaneously (conducted at the same time) or sequentially (after the core component has been completed). The pacing and the type of research strategy used is the one that will best enable the research question to be answered

- more fully or more comprehensively (with broader scope or increased depth) therefore making the research richer and more useful, or
- to obtain another perspective, using a different data type (such as observational data to conduct a core project that uses interviews), or
- to obtain data from a different level of analysis or abstraction—For instance, the core project may use broadly categorized participant observational data, and the supplementary component may use videotaped data that is microanalyzed thereby adding detail so that the project better answers the research question, and last,
- to provide information that may have been inaccessible or unavailable when using one method alone or to answer a subquestion that cannot be answered within the core component (and therefore moves the research program along).

In addition, designs using a *sequential supplemental qualitative component* (→ *qual*) are used

- to answer minor questions that have emerged from the core project or
- to move the project toward implementation, for instance, to develop an assessment guide from a grounded theory core component (see Morse, Hutchinson, & Penrod, 1998; Neufeld & Harrison, 2010).

The supplementary component consists of a research strategy from a second qualitative method, usually using separate data, often of a different type. The supplementary component is incomplete as a method—For instance, it may use data that are not saturated—and the supplementary component research continues only until the researcher has the answer(s) that he or she needs for that particular part of the research. The supplementary component continues until the researcher is certain enough that his or her analysis regarding that component's subquestion is answered.

Are Qualitative Mixed Methods Designed as a Class of Methods? Or Are All Qualitative Methods Mixed Methods?

Before going into all of the problems in explicating QUAL +/→ *qual*[2] mixed method design, let us consider whether thinking of such designs as mixed method designs is useful, or are they just normal variations of qualitative studies? Given that qualitative methods are relatively unstructured and good qualitative inquiry is reflexive, two points must be considered:

1. What may be incorporated into a qualitative project as data for a project not to be considered as a mixed method? That is, usually qualitative researchers consider anything that is pertinent to the topic to be considered as data, and researchers have the freedom to incorporate that data within the method.
2. As qualitative methods are relatively nonprescriptive procedurally, does this methodological freedom provide the researcher with license to use a variety of strategies within a project, without resorting to the label of mixed method design? That is, generally our methods are not inclusive or exclusive about what strategies must, may, or may not be used within a particular method.

Given these two considerations, it is unclear how qualitative researchers differentiate between a responsive, reflexive qualitative study and a QUAL-*qual* mixed method study. How, for instance, do we differentiate between an ethnography that uses several data sets and several approaches or differing strategies to each data set and a mixed method design?

At this time the answer is not always simple, and in part, in the mixed method continuum, there is certainly a gray area. It is possible that these will differentiate as our understanding about mixed methods increases. Some qualitative methods may be easier than others, such as ethnography, to differentiate. For instance, if we are using conversational analysis (CA), and decide to add an interview or observational supplemental component, the supplemental component adds a new perspective, a different data type or data that is clearly using a different level of analysis than CA. However, the supplementary component data is incompatible with the CA analysis. Thus, this project would have similar within-paradigmatic incompatibility problems to those that exist with the cross-paradigmatic problems that occur with quantitative and qualitative mixed methods design, albeit in a slightly different form.

Within-Paradigm Data/Analytic Incompatibilities

In qualitative inquiry, little is clear and obvious and analysis is often a work of compromises and blind attempts at making the best choice. For example, even when designing the most common research question in qualitative health research (i.e., to study a person's experience), the various forms of data used consist of compromises that are less than ideal, and some options may result in a loss of quality in the overall study. For instance, if we wanted to learn about a person's experience, we must make decisions from various alternatives or approaches:

- experiencing it ourselves (as in autoethnography), transforming the experience into fieldnotes, analysis, and written article;
- recording the experience as it occurs, using video recordings for observational research, or audiotape to record the dialogue;
- using interviews to learn about the experience from those who actually experienced it, as individuals or as a group, using interviews, diaries;
- learning about the experience by interviewing others who observed the person(s) experiencing it (caregivers, relatives, teachers, family members);
- examining records of the experience, ranging from official records, photographs, dairies, and hospital chart data to historical artifacts;
- learning about the experience over time, as a one-shot event, or as a part of a trajectory over time, with antecedents, transitions, stages, phases, and outcomes, interviewing the person as they go through the experience;
- examining the observable behaviors of those in the setting, including gross behavioral patterns and/or microanalytical behaviors, including facial expression. The focus may be on the individual, the group, or the interaction between those in the setting;
- examining the qualitative descriptions/interpretations of others' research (of other participants), synthesizing and summarizing the literature;
- examining the concepts and theories that are embedded in the situation and discussed in the professional literature and in lay discourse; and
- using fiction, movies, poetry, and insights of others to explore, for instance, the emotional tone, rather than focusing on the more concrete facts and events.

Each of these approaches places us in a different methodological (and analytical) position with a different distance from the most direct data point, which, in turn, dilutes and perhaps distorts the actual events and participant experiences. Some of these locations give us hard data (or hard*er* data) than others. Some positions provide us with concrete facts and exclude subjective data; others provide us with subjective data, about the meaning of the event and emotional data, excluding hard data. Some positions provide us with only indirect perceptions of the experience.

Alternatively, we could use more than one of these approaches and increase the depth or scope of our analyses. In this case, each data set (or perspective/approach) would then be considered a component of the qualitative mixed method study. They would be a part of one study and, because of the interactions between data sets, may sometimes overlap, or they may be separate from the other component. Data, for instance, from one group may inform or facilitate understanding of another group, but because these data are from different sources, are of different types, or are from different levels of abstraction, they cannot be mixed, blended, or merged during analysis. Each data set must be kept separate and (unless formally transformed) analyzed separately until the findings from each component can be incorporated into the results narrative. These data used for the supplementary component may verify or add to the core component. When writing up the results (i.e., the results narrative), the investigator moves the findings of each data set into the textual description where the answers to the research question are compiled and addressed as a

whole. The researcher then shows how these components contribute to addressing the research question.

Making decisions about the focus of your study, what data types you will have in the original set, and how these data will be presented as they are incorporated at the point of interface (i.e., where the two analyses meet) in the results narrative to achieve the type of expected results are important actions of early project conceptualization and proposal preparation (see Morse & Niehaus, 2009). Yet, working inductively, qualitative researchers do not know (and cannot anticipate) everything that will happen within the project. However, if they can envision the possible alternatives, as "if, then" statements within the limits of the type of data they will be using/requiring, the better informed the investigator and the better the study.

The armchair walkthrough. We call this preparatory step of envisioning alternatives within a project as an armchair walkthrough (Mayan, 2009; Morse, 1994, 1999). An armchair walkthrough enables the researcher to maintain an inductive stance and enables the planning necessary to prepare a proposal. This obviously simplifies the research process—institutional review board (IRB) approval can be obtained for the entire project, funding organized, personnel hired, and timelines estimated.

In QUAL-*qual* mixed method design, the design is dictated primarily by the method but also from the objectives or goals of the study, subsequently the study question, from what is known (the literature review), and from the research context, by the limitations/advantages of the research participants and setting. Finally, the armchair walkthrough may become a part of the overall audit process for the study, showing the expected course of the study from that which was reflexively actually conducted. Thus, the armchair walkthrough is an important tool used when conceiving a project and developing a proposal, including a proposal for a mixed method study. In the next part of this article, we will illustrate various types of qualitative (QUAL-*qual*) mixed method designs, using armchair walkthroughs.

QUAL +/→ *qual* Mixed Method Designs

QUAL-qual Design Considerations

When planning such studies, methodological considerations are important. *Selecting a method* refers to the best, formal method that will enable the research question to be mostly answered. In mixed method design this occurs in the core component, and in the qualitatively driven mixed method project this is one of the major qualitative methods mentioned earlier. The supplemental qualitative component is a research strategy from a different qualitative method, for instance, a particular style of interviewing, such as an unstructured or semistructured interview, and this strategy may be linked to a style of analysis, such as thematic development, constant comparison, or content analysis.

Another design consideration is the mode of sampling and data collection to be used, and these also are directed primarily from the question, but to a lesser extent the context and participants must also be considered. For instance, if the research question pertains only to one group of participants, generally data are collected and pooled within a single data set; if a comparative study is proposed, two or more groups of participants may be identified, data are pooled (and analyzed) by group, and data from each group compared and contrasted. However, if a case-study design is proposed, data from each participant are collected and analyzed by individual participants. Following this initial analysis, the case-study design may be extended, with the common characteristics identified from each participant then compared and contrasted between participants.

Other design characteristics include level of analysis (the microanalytic, macroanalytic, conceptual, or theoretical level within which the analysis is conducted), data type (the concrete or subjective nature of data to be included in the study), and data description (the researcher's operations of inference, interpretation, or objective [hard] description). I will refer to *similar participants* as *groups* (samples of patients, physicians, or relatives, etc.) and place this terminology in qualitative mixed methods terminology of core and supplemental components, theoretical drive, the pacing of the project, and the point of interface (Morse & Niehaus, 2009).

Types of QUAL-*qual* Designs

In this section, I will present, along with design considerations, various types of simultaneous and sequential qualitatively driven designs, contexts, and examples of methods that may be used. All examples fit the mixed method criteria that the gap between the core method and the supplemental project is too wide for any blending of the data of the core and the supplemental project to be possible. Analyses must always be conducted separately. The list is not complete; these examples are used for illustrative purposes only.

Simultaneous QUAL +/→ qual Mixed Method Designs

QUAL + *qual* is most commonly conducted using two data sets and usually two groups of participants. The core method is usually a standard qualitative method, such as phenomenology, grounded theory, ethnography, and so forth. Data from the core component are grouped for all participants, and analyzed by content or thematic analysis, according to the method used. That is, these data are not

analyzed participant by participant. Rather, data from all participants are pooled as the categories or themes are constructed. The supplementary component consisting of a strategy from another method may be an observational technique or another type of interview, such as focus groups. These data are also pooled for all participants. Depending on the questions, on the availability of the sample used in the core component, these participants may or may not be the same participants who participated in the core component. However, they are usually from the same population. Importantly, because the investigator's approach to these data is different from the approach used in the core component, data are analyzed separately, and the results of each analysis meet in the Results point of interface. That is, the results of the core component form the theoretical base of the results narrative, and the results from the supplementary component are added to the theoretical base.

Examples of QUAL + *qual* designs are as follows:

1. Core component may be CA, and the supplementary component may be focus groups. The CA provides documentation of dialogue; the focus groups provide group experiential data. Design is QUAL (CA) + *qual* (focus groups).
2. Core component may be a phenomenological study, exploring the meaning of a phenomenon; the supplementary component may be some form of nonparticipant observation. The design for this study pools the data within the core and the supplementary component. Design is QUAL (phenomenology) + *qual* (nonparticipant observation).
3. A grounded theory is conducted using unstructured interviews of single mothers (employed and not employed outside the home) and their experiences of caring for preschool-age children. Supplementary component consists of semistructured interview data about the nature of their employment. Design is two-group comparative—QUAL (grounded theory) + *qual* (semistructured interviews).
4. In a video ethnograpahy of caregivers and patients in an Alzheimer's unit, the QUAL data set are grouped (pooled) data; the supplementary component may have the same videotaped analyzed but at a different level of analysis—for instance, microanalysis of mealtime feeding of the patients. Design is QUAL (macroanalysis) + *qual* (microanalysis).
5. Considering, for instance, physician and patient dyads as two groups of participants with data linked between pairs of participants, the patients may have unstructured phenomenology of the meaning of care, and the physicians, observational data of care provided, observational data of the telling. The design is QUAL (phenomenology) + *qual* (observations).
6. In a pooled data linked over a time trajectory (before/after) looking for changes within the groups, the core component may, for instance, be an ethnography of a bereavement group; supplemental data may be focus groups 1 year following the bereavement. The design is QUAL (ethnography) + qual (focus groups).

Examples of QUAL + *qual* designs are as follows:

1. Building an assessment guide: The core component may be a grounded theory exploring the process and stages of recovering. Once the analysis is complete, the grounded theory process (stages and phases) are modified to develop as indicators that may be used in the assessment guide. The design is QUAL (grounded theory) → *qual* (development of indices).
2. Qualitative evaluation research: The core component is nonparticipant observations of workers, and the subsequent supplemental component is semistructured interviews developed from these observations. The design is QUAL (nonparticipant observation) + *qual* (semistructured interviews).

From the above designs, note the following design characteristics:

- Using two independent data sets—different perspectives or different groups of participants—enables comparison of the two data sets (for instance, mothers/fathers, caregivers/patients), those with or without certain significant characteristics (silent diseases vs. symptomatic). Such comparison enables the theoretical development of your study to move more quickly.
- If using the same data set while using different analytic approaches or strategies, you have a mixed method design.. The supplementary component elicits additional information or data that may be inaccessible if you are using a single method.
- If your design is using pooled data before and after design, participants are linked by a similar experience. These may actually be different participants in the before and the after groups—but it means that the investigator does not have to wait an extraordinarily long time (even years) for an

adequate sample or for enough time to go by to observe the desired changes.
- Sometimes a question arising from pooled data set may be answered using other data sources (other participants or other types of data). Researchers must evaluate the pros and cons of using alternative data sources in the supplementary components.
- The above qualitatively driven designs may be extended to become quite complex chains of supplemental components.
- Always diagram your design to prevent confusion.

One final word: If conducting research in teams, keep the researchers allocated to separate data sets to prevent cognitive/analytical confusion. This approach has the added advantage of enabling lively analytical/theoretical discussions, making the identification of similarities and differences easier.

Methodological Issues for Qualitative Mixed Method Designs

Can you use the same data for both the core and the supplemental components?

This is an easy question, but the answer is not so straightforward. Whether you are able to use the same data for both components depends on the nature of your question, on the requirements for the form of the data, on the adequacy of the data for answering the supplemental question, and so forth. Above, we have an example using the same videotapes for the core and the supplementary components, but data for analysis for each component is prepared differently.

As research is guided by the questions asked, and obviously the question asked of the data set is different for the core and the supplemental questions, different parts of the data set may be used, or the data may be used in different ways—for instance, to develop categories or themes. The ultimate test is asking the following questions:

- Will these data provide the information that is needed?
- How good are these data to provide that answer?
- Do these data provide the best descriptions of the phenomenon that are needed? and
- Are these data current and pertinent?

If all of these questions can be answered, then use the data set; if not collect new data. Sally Thorne (1994) is a little more conservative and recommends that a few new interviews should always be conducted to ensure that nothing has changed and conditions remain unchanged.

Can you use the same participants in both the core and the supplemental components?

Of course, the answer to this question depends on what you are trying to find out, what you want to know, and on your basic research. If your research design links both the core and the supplemental data set, then the same participants must be used for both components. However, often little is lost if you are forced (perhaps by sequential research design) to use different people for each component and to aggregate each data set.

QUAL-*qual* mixed method design may not always be designed at the proposal stage and may be implemented to complete a project when unexpected findings leave some important point unanswered. In this case, the information needed may be relatively easy to obtain, and considerable delays in the research program eventuate if a separate project must be planned to get that information. It is more efficient to file an IRB approval and to complete the study and then move forward.

Contextualizing Qualitatively Driven Designs

Initially, qualitative inquiry is always context bound. Context bound means that the selected research method is dictated by the research question—by what the researcher is asking within a particular topic (and often a particular setting). For purposes of these QUAL mixed method examples, the hypothetical context for the research questions will be studies planned to explore breaking bad news or the information that physicians tell patients about poor prognosis, what patients hear when told (and how they learn about their disease and the prognosis), and the context in which the telling occurs—and what patients' hear when told.

Armchair Walkthrough: Exploring Breaking Bad News

Clinicians have complained that when they are given a prognosis, patients do not hear bad news. Patients say "I was not told"; clinicians say "I did tell them!" Such a research design with the goal to determine how bad news is given to patients and what they hear when given this news demands two sets of paired data.

Project 1. What (and how) do physicians perceive that they break bad news?

A tremendous amount of research has been conducted from the providers' perspective on the best way to give bad news to a patient. Books have been written on techniques of

telling, workshops teach techniques. Therefore, if we are to interview providers about how they tell, we run the risk of hearing nothing new—but a summary of this in-class learning. However, if we use that information to construct an semistructured interview schedule, developing questions about patients, for instance, who had various responses to hearing the news, who was present (supportive), and their response, we would get some interesting data. Semistructured interview methods are static—That is, all participants are asked the same questions in the same order, and data are analyzed at the same time at the end of the study. Once these data are analyzed, it is highly likely that some interesting new findings will have emerged about the context and breaking bad news.

The focus groups—groups of clinicians—may then be invited to discuss further some part of the findings that had not been on the researchers' screen earlier. For instance, the researchers may be suggested findings about how clinicians read patient cues—transitory expressions and so forth—when giving back news. What facial and bodily stance cues are observed and how clinicians make decisions to give the news, to speak primarily to the patient or her support person, and to remain with or to leave the dyad are decisions that experienced clinicians make almost unconsciously, yet would provide significant supplemental data to this core project. This design would be QUAL (semistructured interviews) + *qual* (focus-group interviews).

Project 2. How do physicians break bad news?

Note that this question differs from Project 1: To solve the dilemma of different physician and patient reports on hearing bad news, we are no longer interested in the perception but actual behavior.

Data must be collected on

1. the physician's telling—what the patient is told by the clinician; and
2. interview the patient a short time afterward, to determine what the patient has heard.

Both data sets are linked (or paired) by patient, as a type of case study design with each patient considered a case. Subsequent analysis may further combine data pairs within the data set (for instance sorting into patients who accurately heard and those who were unable to hear to identify characteristics of each).

The researcher has a mixed method project with data from two perspectives. The core component (what they are told) is a CA project. These data are audio-recorded as each patient is told and prepared and analyzed according to CA conventions so that the actual words of the clinician are recorded along with the pacing and the intonation. However, to find out what patients actually hear, we must later interview the patients—perhaps get their permission to call them at home later that day, and record a short telephone interview to obtain that information. The supplemental data questions may be "Tell me what happened? What did the doctor say?"

Note these characteristics in this study:

1. Both data sets are obtained simultaneously—this is a QUAL + *qual* design.
2. The supplemental data set—that is, the telephone interviews concerning what the patients actually heard—is understandable/interpretable only in the context of the CA data set. The supplementary component is not publishable alone; these data may not be saturated; these are probably truncated targeted interviews seeking particular information, and so the "whole story" must be interpreted within the context of the core component.
3. In this case, the researchers are comparing pairs of data (the CA and the interview data) for each participant in paired case study. More often, data for the core and the supplementary projects are kept separate from each other until they are combined at the point of interface (in the write up of the results narrative). Either way, these data are treated more formally than data sets are in ethnographic studies.
4. An additional analysis may be completed near the end of the project. The researcher may wish to categorize the data units (pairs) into groups rates as (a) excellent comprehension, (b) some missing information/misinformation, and (c) unable to comprehend, and identify the characteristics of each interaction.

The point of interface for this project is within each participant (when comparing the CA data with the interview data).

Project 3. Following a diagnosis of positive breast cancer, what do patients hear when given poor-diagnostic bad news?

This time the question places the core component (QUAL) onto what patients hear. In order to answer this question, the investigator must have evidence about what the women were actually told (the CA becomes the supplemental component) and compare that with the interview data, in which women report what they heard the physician tell them. The best design would be to audiotape the interview of the telling, followed by unstructured interviews (perhaps conducted the next day by phone) of the unprompted subjective reports of the interviews.

The core component would be the unstructured interviews, linked to the supplemental project—what the

women were actually told by the physician and transcribed for ease of data handling. Thus the analysis would proceed by each pair of data components (what was heard and what was told) compared and described as a unit. The design would be as follows:

QUAL (unstructured interviews with women) + *qual* (CA of the physician telling)

Project 4. A more complex and interesting mixed method design would be to increase the number of factors being examined, and thereby increasing the scope of the study. Of course, the question would change as follows:

> What characteristics enable or inhibit patient comprehension when given poor-diagnostic bad news?

The investigator may be interested in whether the patient suspected they were about to receive bad news when the patient meets with the doctor; whether the physician provides subtle clues about the impending bad news (i.e., foreshadowing; Maynard, 2003); the patients' response to the bad news and the role of the support person; and what they actually heard in the postinterview session.

This time we have many data sets:

1. Preinterview with the women about what they expect to be told;
2. Audiotaped interviews with the physician, from which we obtain (a) transcripts of the physicians giving bad news; (b) observational description of the women's response; (c) a description of the support persons behavior; and
3. Unstructured telephone postinterviews with the women to elicit what we heard.

The core component (QUAL) is the postinterview data; the supplementary components are derived from the other qualitative data sets. Again the data sets are analyzed as linked units and sorted according to various types of responses and comprehension. This design is as follows:

QUAL (postinterviews) + *qual* (pretelling interviews) + *qual* (physician's transcript of the telling) + *qual* (women's response) + *qual* (support person's behavior)

Analysis would proceed by sorting the cases into those who had excellent recall and those who had poor recall (and depending on your sample size, possibly other groups between) and comparing and contrasting each case looking for differences that may be attributed to poor comprehension. Note that the components are placed according to their contribution to analysis in the results narrative. The core component is the component that answers the question best, not the one with data that are collected first.

Project 5. Could we do this study using data from the women's postinterviews with data from all participants pooled in one data set? Yes, we could, but the design would not be as strong, and the questions could to be answered as definitively. Why? You may even be answering the questions in a slightly different ways, perhaps answering the questions as "What are the ways (or modes) of hearing bad news?" From these interviews, you would build categories (using content analysis) of similar responses to the news: Perhaps you would have one in which the women were incapable of hearing ("I saw his lips move but could not comprehend what he was saying"); another in which the women heard some of what was said ("I heard the word 'cancer,' but nothing after that . . ."); some in which the women heard it all but were incapable at that time of making decisions regarding treatment and so forth.

Project 6. How do physicians report that they provide bad news? Do physicians tailor their message according to the type of message they must give and patient characteristics?

This is yet another approach to the same research problem, this time with the focus on the physicians. The core component may be a semistructured interview conducted with physicians whose practice requires them to frequently break bad news. These semistructured interviews will form the core component pooled and analyzed item-by-item using content analysis. The information may be important—for instance, the interview could elicit information about what behavioral cues physicians look for in patients when breaking bad news and how they decide the pace of their message. The supplemental component may be followed by unstructured nonparticipant observation to observe the patients' responses. If the project was conducted sequentially, then these videotapes could be used to look for and to confirm those reported cues. This design is QUAL (semistructured interview) → *qual* (nonparticipant observation).

QUAL + *qual*, paired data of different levels of analysis

In this study, we decided to explore the spatial orientation (and touch observations) and patterns of touch used in the caregiver interaction when breaking bad news using participant observations and video microanalytic data. At this point in the armchair walkthrough, we must decide if we are going to attempt to rate the efficacy of the telling that appears to accompany the differing spatial orientation and patterns of touch, for moving the study to this level of analysis has important implications for increasing the sample size. You decide that such a study would be very expensive because of the type of coding and statistical analysis required and to keep the study as an exploratory QUAL + *qual* of touch observations of touching and microanalysis of touch.

Data are collected using videotaped consultations during which the prognostic news is given to the patient. Each videotaped interaction is coded in two ways:

1. *Macroanalytically* (coding the proximal location and body action for both the caregiver and the patient): Dialogue is transcribed, and the bodily movements are described in concert with the ongoing consultation and telling.
2. *Microanalytic analysis of touch*: To do this analysis, the tape is slowed and sometimes separate sequential frames are used to describe the hand positions, purpose, type, and duration of touch. If possible, the event preceding the initiation of the touch and following and accompanying actions such as eye contact are included as a part of the touch interaction.

Note that in this study, we are using the data form (i.e., videotapes) but analyzing them differently—macroanalytically for spatial body position and microanalytically for patterns of touch. The two types of data MUST be kept separate and analyzed separately. The point of interface is again in the results narrative.

We considered linking these data to patient comprehension earlier and decided against it. However, we may want to consider something like patient satisfaction, or some form of patient rating of the caregiver, extending the mixed method design to a quantitative component: QUAL (caregiver interaction) + *qual* (microanalysis of touch) + *qual* (patient comprehension) + *quan* (patient satisfaction scores).

Conclusions

While some researchers are uncertain if QUAL-*qual* designs are mixed methods, in this article, I argue that they may be a mixed method design and deserve attention as such. When qualitative data types, levels of analysis, or participant perspectives are different enough that it is necessary for the two methods to be handled differently and to be kept apart, we have the rationale for using mixed method design. When one of the components is complete and forms the theoretical base and the other component supplements the core component, we have a qualitative mixed method design.

Qualitative mixed method research has important design considerations, including the planning of the projects, the pacing of the components, and the crafting of the research results and the developing theory. Mixed methods enable qualitative researchers with the designs and principles to handle problems of increasing complexity, and these advances will move qualitative inquiry forward.

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Notes

1. If the supplemental method is complete and could be published separately, this would be considered a *multiple method design.*
2. Notation: QUAL indicates a qualitatively drive study, with a qualitative core component; *qual* indicates a qualitative supplemental component; + indicates that two components are conducted simultaneously; → indicates the supplemental component will be conducted sequentially (see Morse & Niehaus, 2009).

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