



Memoing in qualitative research

Probing data and processes

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Abstract This paper explores memoing in the context of qualitative research methodologies. The functions of memos in the research process are discussed and a number of techniques for employing memo writing to enhance the research experience and outcomes are examined. Memoing is often discussed in the literature as a technique employed in grounded theory research, yet there is limited exploration of the value of memo writing in qualitative methodologies generally. Memoing serves to assist the researcher in making conceptual leaps from raw data to those abstractions that explain research phenomena in the context in which it is examined. Memos can be effectively employed by both the novice and experienced researcher as a procedural and analytical strategy throughout the research process. Data exploration is enhanced, continuity of conception and contemplation is enabled and communication is facilitated through the use of memoing. While guidelines exist to aid in the production and use of memos, memoing remains a flexible strategy wherein the process of construction and nature of content is determined by the preferences and abilities of the researcher and the aims and focus of the specific research study.

Key words grounded theory, memoing, memos, qualitative research, research process

Introduction

Research in the qualitative tradition is characterized by an emphasis on contextually situated meaning. The researcher must delve into the world of their participants with the aim of developing a shared understanding of how existence in this social arena is

influenced by phenomena under study. Achieving this aim is dependent upon the use of techniques that aid in the exploration of issues with unreserved fervour yet which permit acknowledgement of subjective influences and maintain quality in the research process. Memoing enables the researcher to engage with the data to a depth that would otherwise be difficult to achieve. Through the use of memos, the researcher is able to immerse themselves in the data, explore the meanings that this data holds, maintain continuity and sustain momentum in the conduct of research. As a chronicle of the research journey, memos remain as an indelible, yet flexible, record for personal retention or dissemination to others. This article will discuss the role of memoing in qualitative research and will examine how memos can be utilized by both experienced and neophyte researchers to enhance the process and outcomes of research in the qualitative domain. In order to illustrate the effective use of memoing, examples will be drawn from our own research into the experience of nurses undertaking tertiary study in Malaysian Borneo.

Memos and qualitative research

The very nature of qualitative research requires the researcher to assume a reflexive stance in relation to the research situation, participants and data under study. As the researcher becomes immersed in the world of their participants, reflexivity facilitates an understanding of the impact of their own subjective influences on the collection and interpretation of data (Primeau, 2003). Within the positivist paradigm, such subjectivity would be viewed as counter productive to the search for a single verifiable truth. In qualitative research, however, the interplay between researcher and data is crucial to the generation of knowledge that reflects the breadth and depth of human experience.

As a methodological strategy, memoing is most commonly associated with grounded theory, yet all qualitative approaches can be enhanced by the use of memos. Unfortunately, many researchers fail to capitalize on this valuable tool with absent or substandard memoing being a major shortfall of most qualitative research studies (Clarke, 2005). Through the use of memos, the qualitative researcher is able to engage with their research to a greater degree than would otherwise be the case. An intense relationship is established with the data, enabling the researcher to feel a heightened sensitivity to the meanings contained therein.

Memoing as a research technique is not restricted to the analytical phase of research. From the time a study is conceptualized, memos can help to clarify thinking on a research topic, provide a mechanism for the articulation of assumptions and subjective perspectives about the area of research, and facilitate the development of the study design. Writing of memos is not undertaken according to a predetermined schedule or system of task allocation. Glaser (1978) implores the researcher to consider memo writing a priority to ensure the retention of ideas that may otherwise be lost. All tasks in the conduct of research can therefore be considered subordinate to the writing of memos for the recording of ideas, musings and reflections. Regardless of how inconsequential these thoughts, feelings and impressions may initially seem, creation of a record in the form of memos ensures the preservation of such ideas that may later prove significant (Polit and Beck, 2006).

Clearly, the writing of memos is central to the process of investigating phenomena within the qualitative domain. There are a number of approaches to the writing of memos and a number of benefits bestowed on both the researcher and the study outcomes by this process. The most important contribution that is made by memoing however, is that it initiates and maintains productivity in the researcher (Charmaz, 2006). In short, memos get the researcher writing from the beginning and form the

basis for the final written product, be this a report, article or thesis. The researcher who is able to realize the significance of memoing from the outset of their study will find the final stages of their research much less onerous than one who fails to make this critical investment in what will ultimately prove to be 'intellectual capital in the bank' (Clarke, 2005, p.85).

Functions of memos

In addition to the advantages that memoing holds for qualitative research generally, memos perform a number of functions in the research process that justify specific examination. For convenience, these functions can be described using the mnemonic 'MEMO': Mapping research activities; Extracting meaning from the data; Maintaining momentum; Opening communication.

Mapping research activities

Perhaps the most pragmatic use of memos is to record the decision-making trail that establishes and guides the research through its many phases from conceptualization to completion. In any qualitative research study, an audit trail serves to demonstrate to the reader how decisions were made and conclusions reached in the conduct of a research study (Speziale and Carpenter, 2007). These decisions may relate to any phase of the study, such as sampling issues, data collection activities or analytical procedures. Memos permit the recording of the natural progression of a study along with any changes in direction and the context from which these arise. The following extract from an operational memo developed during our study of nurses in Borneo provides such an example:

Had a meeting with my supervisors yesterday to discuss the data collection visit next month. We have decided that focus groups are now the way to go, as I have quite a wealth of data already from the interviews, and there are preliminary categories established. Moreover I believe that participants may feel more comfortable in a group situation and this may render greater depth and breadth of information.

Many of those memos written during the planning stages early in a study contain content of a concrete nature regarding activities to be conducted and the rationale for their selection. The straightforward nature of these memos provides the novice researcher with the opportunity to acquire skills and comfort in memo writing while developing their own personal style.

Extracting meaning from the data

Qualitative research aims to explore a given phenomena with the intention of establishing the meaning it holds for those whose lives it touches. The researcher must be able to employ analytical strategies that enable this meaning to be extracted from the data and subsequently expressed in conceptual terms (Speziale and Carpenter, 2007). Memoing facilitates this outcome by enabling the researcher to answer the question 'What is actually happening in the data?' (Glaser, 1978, p.57). In our own research, we used definitional statements during coding to summarize what the data was saying. The following extracts from coding memos provide simplified examples of these:

What is going on here? I have come up with a definitional statement of "After completing the degree, I now understand that nursing is. . ." This can also be extended to others, i.e. "If they did the degree they would understand that nursing is. . ." ('is not' is an implied option).

The above discussion puts me in a position where I can answer the question of what is going on here. The definitional statement being: "I now have a new/enhanced view of nursing as a profession and believe that with this status nurses should/are/can. . .".

Definitional statements identify the parameters of each group of data, and provide a tool for conducting a comparative analysis. Constant comparison is the basis of theoretical analysis where the goal is theory generation (Green and Thorogood, 2004). It is through memoing that the researcher is able to articulate, explore, contemplate and challenge their interpretations when examining data. Similarities and differences are identified, relationships are explored and hypotheses spawned. The result is the generation of theoretical assertions that are grounded in raw data, yet possess the quality of conceptual abstraction. The process of memoing requires the researcher to acknowledge and demonstrate the logical processes that have brought them to this point (Strauss and Corbin, 1998). Memos are therefore the vehicles that transport the researcher from the concrete to the conceptual.

Maintaining momentum

Qualitative research requires an acknowledgement of the subjective influences that the researcher exerts on the process of knowledge development (Speziale and Carpenter, 2007). In essence the researcher extracts meaning from the data by filtering it through their own interpretive processes. As such the researcher is the instrument in qualitative research and their perspective establishes to a significant extent the context of the study (Patton, 2002). In rejecting the existence of a single reality or truth, the qualitative researcher acknowledges that variations in situation and context influence interpretation (Hansen, 2006).

At various stages of a study, fluctuations in influential factors will occur. The perspective of the researcher will be altered as sensitivity to the data is heightened and contextual variations occur, a fact recognized during our own research and acknowledged through memoing:

Memos make it possible to record what you saw and why you saw it in the data. When your perspective changes, you must be able to justify how this will impact on decisions in regard to coding and analysis. This limits the impact of arbitrary, subjective viewing of the data by forcing you to explain any changes made to earlier decisions. These earlier decisions may have been made with a fresh outlook, or an exhausted set of eyes and so changing perspective is not a bad thing, just something that needs to be justified.

Memoing therefore provides a mechanism by which the perspective of the researcher can be recorded for later critical review or confirmation. Memos are contemporaneous, a snap-shot of thought processes at a given stage of the research that facilitate an understanding of what perspectives were held and why decisions were made. Such a record obviates the need to go over old ground, reconsidered previous thought processes or locate threads of analytical cloth that would otherwise be lost.

Qualitative research is an evolutionary journey. The researcher must expect different ideas to emerge and operational directions to change in response to what is found in the data. These variations are identified through and mediated by memos. As a result earlier thought processes and directions, as articulated in memos produced at the time, may require amendment or clarification or may prove entirely redundant (Strauss and Corbin, 1998). As Clarke (2005, p.85) so aptly puts it 'just because they are etched in silicon does not mean you cannot change your mind'.

Writing memos is a flexible process, and one that provides 'a space and place for exploration and discovery' (Charmaz, 2006, p.81–82). Memoing therefore permits the researcher to take risks. Fear of making erroneous decisions should not create hesitancy in the researcher. On the contrary, memos provide security in enabling recording of ideas without prejudice, in that amendment is not only permitted but

also encouraged. For that reason memos are an effective tool in overcoming 'analytic paralysis', a state in which the researcher (particularly the novice) is unable to move from data collection to analysis, most often because they fear making a mistake (Clarke, 2005, p.84). Under the protective shelter of memoing the researcher is inspired and the generation of thought is reflexive.

Opening communication

Research teams can take many forms, and may be as small as a supervisory panel and their student researcher or as large as a multidimensional corporate or government-funded research team. Memos are most often written for the eyes of the researcher alone (Strauss and Corbin, 1998) yet can be employed to convey ideas to other persons or parties who are stakeholders in a given study. Memos are an effective way of permitting the recording of ideas at a stage where they are simply musings, permitting comment and input from others involved in or overseeing the research. Memoing is therefore an important strategy in maintaining communication, consistency and interconnectedness (Richards, 2005), regardless of the size and structure of the research team.

Form and structure of memos

For the beginning researcher the prospect of writing memos may prove daunting. A number of authors provide guidelines for the writing of memos in the form of technical and/or methodological rules (see e.g., Glaser, 1978; Strauss and Corbin, 1998; Richards, 2005; Charmaz, 2006). While these distinguished authors can assist the novice in starting the flow of memos, Charmaz (2006, p.80) advises that the best approach to memo writing is to 'do what works for you'. Some researchers may find themselves more comfortable using a conversational style reflective of how they think and speak or may prefer a more formal record of their thought processes and actions. Methods by which memos can be produced are many and varied. Whether a researcher chooses to use pen and paper, a computer program or voice recorder is a personal choice (Clarke, 2005). How the researcher produces their memos is inconsequential, that they are produced and in a form that is indelible, secure and easily retrievable is vital (Strauss and Corbin, 1998).

Memos work alongside other sources of data such as transcripts and fieldnotes to provide supportive documentation for a study. While transcript and fieldnote data can be incorporated into memos, the reverse is rarely true. Notations on documents of this type limit the extent to which ideas of any significance can be developed or any level of abstraction attained (Strauss and Corbin, 1998). Glaser (1978) also cautions that memoing directly within data sources may potentially blur the distinction between a participant's original comments and the researcher's conceptualizations.

Memoing as an analytical technique is discussed extensively in the literature regarding grounded theory methodology. As the aim of grounded theory is theory generation, Strauss and Corbin (1998) advocate the classification of memos into operational memos, coding memos and theoretical memos. As mentioned above, memoing is an indispensable strategy in other forms of qualitative research where the focus may be description, interpretation or critique, rather than theory building. In our research, we found that categorizing memos as operational, coding and analytical provided greater scope in the early stages of analysis. We used operational memos to map the steps that we took at each and every stage in conducting our research, including the rationale for decisions made and actions taken. Coding memos enabled a deep and detailed exploration of processes

involved in coding and categorisation of data. Analytical memos provided an avenue to examine data at a greater level of abstraction and to explore hypotheses, relationships and explanations contained within the data. The following extract from an analytical memo used in our study of nurses in Borneo provides an example of how data can be explored at a more conceptual level:

I think again that it is worth exploring how the participants define these aspects of themselves. The data so far suggests that much of their persona they see as professional. In identifying these changes, therefore, they are taken out of the other domains. This requires further qualification and clarification but I think it still remains a viable 'category'. I know it has been explored before, but I believe that the unique context here may yield something else of value.

What also needs exploring is why the changes (the 'new life') appear to predominately occur in relation to the workplace and for them professionally. Yes, some do indicate clearly that they have changed outside the workplace but most say that relationships are the same. Could this be because in the case of close relationships one expects that one is already all they can be? JM has suggested that the change is because their professional identity is less ingrained (and therefore more susceptible to change) than their personal identity. I like this thought and think it's worth pursuing more.

It is important to point out that separation and classification is not always necessary, or desirable. As with many elements of qualitative research, selecting an approach that fits both the area of research and the preferences of the researcher will prove most effective. Charmaz (2006), for example, prefers to classify memos more simply as *early* and *advanced*, while Glaser (1992) rejects the need to separate memos to any degree, considering that doing so offers no advantages. Whatever approach is used, the researcher will no doubt discover that attempting to develop exclusive categories of memos will prove difficult, particularly as analysis progresses, as the following extract from one of our operational memos indicates:

I'm actually memoing on memoing!! I have seen this coming for some time, but I am finding that it is harder to distinguish if something is analytical, operational or coding. So the memos overlap. This is okay, I am not going to get too concerned about this. Glaser does not advocate distinguishing memos (now I can see why!), Strauss and Corbin like to differentiate them. I have found differentiating them to be of value to this point, and I will continue to do so as long as it serves some purpose. I can see a point in the future where they will no longer be separate, and for that reason it is important to log now that the distinction to this point (and beyond) is arbitrary, a memo is a memo is a memo. Operational memos may contain analytical processes, as may coding memos. Here I am just acknowledging this, as in future they will serve a single purpose, to map the decision-making trail and thought processes that have guided me to this point.

Memoing may be considered somewhat analogous to journaling, with the latter more often being associated with an affective element. You may choose, as we did initially in our study of nurses in Borneo, to maintain a reflective journal as well as produce memos in support of the research process. As our comfort level increased with the writing of memos, the journal became redundant as more reflective memos developed as a natural progression of analysis. Production of memos with a reflective element has the advantage of explicating the position of the researcher (Mills et al., 2006). In the initial stages however, it may be difficult to put down in a memo the insecurities that commonly plague the novice researcher. Eaves (2001) for example, speaks of the self doubt expressed in her own memo writing. This level of honesty is critical to ensure that limitations that have the potential to impact on the research outcomes are identified and explored. The following extract from a memo prepared by the principle researcher in our own study provides an example of such veracity:

I have been conscious from the outset of the need to ask myself if the explorations, explanations and rationales contained in the memos are a true reflection of my interpretations, or just an attempt to convince myself that I have made everything fit. In some ways they are both, and that is fine, as long as they remain true to the data.

Regardless of the approach devised in respect of the structure, format and substance of memos in support of a study, attention should be given to details such as ensuring that each is assigned a title that reflects its nature and content, that they are dated and are appropriately cross-referenced to other memos and documents of relevance (Strauss and Corbin, 1998). Be prepared to see a change in memos over time, as analyses progress and engagement with the data increases. Memos will become more lengthy, more complex, more open and honest. Relationships within the data will be explicated, critical decisions will be made based on analytical breakthroughs and the overlap between memos will increase. Most significantly, the growing confidence of the researcher and their increasing expertise in memo writing will be reflected in each and every memo that is produced.

Conclusion

Memoing is an effective tool that can be used to enhance the research experience in all qualitative methodologies. Exploration and interpretation of human experience within the social environment is a central element in studies employing a qualitative approach. Can this be achieved without the use of memoing as a research strategy? Undoubtedly yes, but it is likely that the end product will possess less depth, quality and elements of self and shared meaning that characterize qualitative research. Memoing permits exploration of the various pathways along which qualitative research will lead, while permitting the researcher to remain true to the data and the studied world from which it is generated.

Key points

- Memoing is a tool that can be used in conducting research, particularly in the use of grounded theory.
- Memoing can be used to enhance the research process and outcomes in all qualitative approaches.
- Memo writing is used as an analytical strategy to permit the researcher to achieve abstraction while remaining true to the data.
- Memos function to enable meaning to be extracted from the data, permit the researcher to maintain momentum, aid in mapping of research activities and facilitate communication in the research team.

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