Memo Writing Procedures in Grounded Theory Research Methodology

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Abstract
This paper develops memo writing techniques within the framework of grounded theory methodology of qualitative research in social sciences. In grounded theory, memoing is one of the most important processes to develop and enrich theory. Memo is the written record of the researcher’s thinking. It is an analytical strategy that facilitates the researcher to achieve clear concept and truth from the data. It is considered as the tool of all kinds of notes taken by the researchers in grounded theory during their research. But yet there is a limited use of memo writing in other qualitative researches. Memoing increases investigation, inspection and continuity of data during the research analysis. In this study an attempt has been taken to discuss the aspects of memoing along with its benefits.

Keywords: grounded theory, qualitative research, data analysis, memoing

1. Introduction
Two American sociologists Barney Galland Glaser (1930-2022) and Anselm Leonard Strauss (1916-1996) published their seminal book The Discovery of Grounded Theory: Strategies for Qualitative Research in 1967. Their invention has laid the foundation of grounded theory (GT) methodology in the social sciences, which is considered as the most prominent and influential qualitative research approach (Glaser & Strauss, 1967). Later, students of Glaser and Strauss, such as Juliet Corbin, Adele E. Clarke, and Kathy Charmaz have further developed the second and third generations of GT, and different interpretations of GT methodology (Morse et al., 2009).

In grounded theory (GT) research, coding, constant comparison, memoing and memo sorting, are familiar procedures to analyze data (Glaser & Strauss, 1967; Charmaz, 2006). In qualitative research, memos are the storehouse of ideas generated and documented through the interaction with data (Corbin & Strauss, 2008). These are reflective interpretive pieces that build a historic audit trail to document ideas, events and the thought processes inherent in the research process and developing thinking of the analyst (Glaser, 1978). In social research, memos are written throughout the entire research process. These form the core of GT and increase the level of abstraction of ideas. We make memos more analytic and precise to focus our research (Charmaz, 2011). Memo writing in GT is an analytic and essential process that is “in ensuring quality in grounded theory” (Birks & Mills, 2015). Memoing becomes part of developing the theory, as the researchers write down ideas as data are collected and analyzed (Creswell, 2013). It is the pivotal intermediate step between data collection and the drafting of the theory. It explores and records as much analytic detail about the category as we can provide. It provides detailed records of the researchers’ thoughts, feelings, and intuitive contemplations (Charmaz, 2006). It
is a crucial method in GT, as it prompts the researcher to analyze data and codes early in the research process (Glaser, 1978; Strauss & Corbin, 1998).

We write memos on topics, such as the properties of our tentative categories, the conditions when a category is evident, how the category accounts for data, comparisons between codes and category (Charmaz, 2011; Birks & Mills, 2015). Memo writing is an intermediate step between data collection and preparation of a draft research (Glaser, 1998). Glaser has suggested that “memos will vary in subject, coherence, interest, theoretical content, conceptual clarity, and future usefulness to a finished paper” (Glaser, 2013).

2. Literature Review

Founder of grounded theory (GT); Glaser and Strauss, have not supported the existence of a literature review prior to research analysis. They have stressed on the new theory development form the collected data (Glaser & Strauss, 1967). Hilary Engward provides a practical overview of grounded theory that will be beneficial for the novice researchers (Engward, 2013). Laura M. Stough and Sungyoon Lee have stated that at present GT has become one of the most commonly used qualitative research approaches. Since it’s starting, GT has taken on different iterations and evolved a number of variants. They have noticed that recently educational researchers prefer to work on Straussian approach and Charmaz’s constructivist approach (Stough & Lee, 2021).

Juliet Corbin and Anselm Strauss have introduced the concepts of memos and diagrams. Memos are specialized type of written records that contain the products of the analyses. Diagrams are visual devices and arise from analyses that represent possible relationships between concepts (Corbin & Strauss, 2008). Melanie Birks and her coauthors explore memoing in the context of qualitative research methodologies. They have discussed functions of memos in the research process, and a number of techniques for employing memo writing (Birks et al., 2008). Anna Sandgren and her coauthors have shown the value of memoing for students. In their teaching life they have seen that at the beginning of the research, PhD students cannot realize the importance of memoing. They think that it is not necessary memoing in their researches. When they can understand the necessity of memoing, they really worry about the value of memoing (Sandgren et al., 2006).

Neringa Kalpokaite and Ivana Radivojevic have suggested three types of memos that can be applied to most qualitative research projects. They have established a foundational model that consists of four iterative cycles, such as “The Inspection Cycle, Coding Cycle, Categorisation Cycle, and Modelling Cycle, and memo-writing, which is inherent to the entire analysis process”. They have incorporated memo writing to foster the development of the reflexive and critical thinking skills. They have also wanted to provide guidelines of memoing for novice qualitative researchers (Kalpokaite & Radivojevic, 2019).

Johnny Saldaná has shown that analytic memos contain personalization of the event, relation with the research questions, theoretical concepts and connections, description of codes and emerging categories, ethical reasoning, etc. (Saldaná, 2016). Richard H. Rogers stresses that analytic memos provide a platform for the qualitative researchers to record their thoughts during the research process and to code the memos as additional data for the study (Rogers, 2018). John W. Creswell has discussed various steps of memos and memo writing. He has realized that memos, which are short phrases, ideas, or key concepts; in the margins of field notes, help in the initial process to explore a database (Creswell, 2013). Kathy Charmaz is confirmed that memo writing is the key intermediate step between data collection and writing drafts of papers (Charmaz, 2006).

3. Methodology of the Study

Research is a logical and systematic search for new useful information on a specific topic, which investigates to find solutions of scientific and social problems through systematic analysis (Rajasekar et. al., 2013). Methodology is the systematic and theoretical analysis of the methods applied to a field of study. Therefore, research methodology is the science of studying how research is done scientifically (Patel & Patel, 2019). Data collection and analysis with memo writing are essential in GT. Memoing is the most common tool associated with grounded theory research (Clarke, 2005).

At the starting of the study, we have provided the basic ideas of grounded theory (GT). Then we have taken attempts to discuss aspects of memoing and memo writing, such as types, stages, usefulness of memo and memo writing. Finally, we have highlighted benefits and importance of memo writing.

The paper is organized on the basis of secondary data analysis. We have followed published research articles, published books, handbooks, conference papers, websites, etc. to prepare this article. Throughout the research procedures we have tried to maintain the reliability and validity. We have tried to cite properly the references in the text and reference list (Mohajan, 2017, 2018).

4. Objective of the Study

The leading objective of this article is to discuss the aspects of memo and memo writing in qualitative research. Some other ordinary objectives are;
• to enhance the research skills in qualitative approach area,
• to show the style and structure of memo, and
• to highlight the benefits and importance of memoing.

5. An Overview of GT

Grounded theory (GT) is a research methodology in qualitative research that is characterized by the iterative process and the interrelatedness of planning, data collection, data analysis, and later theory development (Glaser & Strauss, 1967; Charmaz, 2006). New data are gathered and new cases are included continuously in the analysis based on their potential contribution to the further development and refinement of the evolving theory that is called theoretical sampling. The theory is produced from this process is called grounded theory (Mey & Mruck, 2011; Vollstedt & Rezat, 2019). Glaser has revealed that GT is “an alternative to positivistic, social constructionist and interpretive qualitative data methods” (Glaser, 2005). GT explores the human experience within the social environment (Birks et al., 2008).

GT is a systematic research procedure, which discovers theory through the data collection and analysis. It consists of a set of inductive strategies for analyzing data, where hypotheses and theories are generated that are grounded in empirical collected data, instead of testing hypotheses on the existing theories. It is an empirical research that increases understanding of social phenomena by considering experience and problems of people, and tries to resolve them (Glaser & Strauss, 1967; Engward, 2013). It allows novices and old hands alike to conduct qualitative research efficiently and effectively (Strauss & Corbin, 1993; Glaser, 1998).

Grounded theory becomes popular in many academic disciplines, such as in sociology, psychology, medicine, anthropology, management, nursing, social work, etc. (Holton & Walsh, 2017). It is well-established, widely recognized, credible and rigorous methodology in qualitative approach (Glaser, 2001). At present there are thousands of publications of GT and also there is a collection of seminal texts (Birks & Mills, 2015). GT is consisting of some unique methodological elements, such as constant comparative analysis and theoretical sampling that differentiate it from other research methodologies (Dunne, 2011). The distinguishing characteristics of GT are (Charmaz, 2017; Glaser, 2013; Glaser & Strauss, 1967; Corbin & Strauss, 2008): i) simultaneous data collection and analysis, ii) creation of analytic codes and categories developed from data, iii) the development of middle-range theories to explain behavior and processes, iv) memo making, v) theoretical sampling, and vi) delay of the literature review.

6. Memo and Memoing

For collecting, coding, interpreting, and analyzing collected data; a researcher writes down his/her ideas, reflections, insights, and thoughts about the research setting. Such analytic, conceptual or theoretical notes are called “memos” (Flick, 2014). Memo is a critical link between interview data and creation of codes and categories. Therefore, memo is a “written records of analysis” that contains the results of GT research analysis (Corbin & Strauss, 2008). It is systematic, continuous, and flexible note making during the entire research process. Memos should always be titled, dated, and cross-referenced (Birks et al., 2008; Herzog et al., 2019). Memos are vital as they provide a bank of ideas of the emerging theory (Chenitz & Swanson, 1986).

Glaser defines memos as “the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding” (Glaser, 1978). Robert Thornberg mentions that memo is the “documentation of the researcher’s thinking process and theorizing from data” (Thornberg, 2012). According to Lora Bex Lempert memo is “the narrated records of a theorist’s analytical conversations with him/herself about the research data” (Lempert, 2007). Kathy Charmaz realizes that each memo is “a partial, preliminary and modifiable, open for correction and revision” (Charmaz, 2006). Therefore, memos are informal logical notes about the data and the theoretical connections between categories (Glaser & Holton, 2004).

Memo is simply the written-down connection among incidents, codes, properties, and categories (Chametzky, 2016). It is concurrent snap-shot of thought processes at a given stage of the research. It is an essential and effective tool that can be used particularly in conducting GT researches, which enhances the research experience (Stockler & Close, 2013). It facilitates to understand what perspectives are held and why decisions are made, and facilitates communication in the research team (Birks et al., 2008). It records the interpretation of the data that are written throughout the life of the research study. It is an integral component to GT research that is continuously conducted throughout the data collection and analytical processes. It expedites a researcher to study the data and codes in new ways (Charmaz, 2006, 2017).

Memos can be about events, cases, categories or relationships between categories (Charmaz, 2006). These are very special types of written notes in GT. These not only describe the phenomena these are about, but also moving on a Meta level. These could be as long or as short as necessary, from one sentence to several pages (Strauss & Corbin, 1990). These are stored in two forms: i) an electronic “memo bank” that includes electronic
files and multiple revisions of each memo, and ii) a research notebook that contains hand-written memos from interviews and spontaneous ideas (Lempert, 2007; Groen et al., 2017). Glaser and Holton show that “memos present hypotheses about connections between categories and/or their properties and begin to integrate these connections with clusters of other categories to generate the theory” (Glaser & Holton, 2007). Therefore, memos “give you a handle on your material and a place to consider, question, and clarify what you see as happening in your data” (Charmaz, 2012).

Memoing is a continuing activity, which builds intellectual assets, fosters analytic momentum and informs the GT findings (Charmaz, 2012). It can encompass the process of researcher to make sense of the data through reflexive notes, analytic ideas, and documentation of the developing research (Braun & Clarke, 2013; Miles et al., 2014). During the coding, memoing is necessary to write ideas of how the researchers have arrived at the codes, and how they are using them to explain the storyline (Stuckey, 2015). Memoing is most commonly associated with grounded theory research (Clarke, 2005). It enables the researcher to engage with the data to a depth. Consequently, the researcher is able to explore the meanings that the data hold, maintain continuity and sustain momentum during the conduct of research (Birks et al., 2008). Memoing is crucial during the first level coding process. If the research is performed through coding without memoing then it will not support GT (Glaser & Holton, 2004). Although memoing is frequently used in grounded theory, all qualitative researchers can use memos to enrich their researches (Birks et al., 2008).

6.1 Style and Structure of Memo

There is no fixed style of memoing, a researcher can take any form; informal, formal, or conversational, and can use his/her own autonomy of memos to develop research (Glaser, 2013). The best way of memo writing is to “do what works for you” (Charmaz, 2006). Anybody does not show his/her memo to others, as this is of private. Hence, it is not necessary to check grammatical mistakes of memos. A memo has no approved structure, it may be long or short. Format of memos vary from person to person (Birks et al., 2008). Memos are read by busy individual researchers. As a result, these do not need long background sections and flowery language. Ian Dey has observe that “memos should be suggestive; they needn’t be conclusive” (Dey, 1999).

Memos might be anything from a couple of words to several paragraphs or pages (Gynnild, 2013). There are no rules as for how they should be written (Glaser, 2013). Formal and academic training for memo writing is not necessary, as it kills the autonomy and creativity of grounded memoing (Andrews, 2012). Memo is not critiqued or evaluated, and has no perfection (Glaser, 2013).

There are different parts to a memo, such as heading, body of the memo, and attachments. The heading recognizes who wrote the memo and who it was sent to, the date, and the purpose of the memo. The body provides a description of the purpose, such as important background information with some detail, and specific recommended response. A researcher can attach any documents in memo under the closing (Andrews, 2012; Kalpokaite & Radivojevic, 2019). A novice researcher is unsure of the purpose of memoing (Andrews, 2012).

6.2 Types of Memos

Generally there are three types of memos in qualitative research (Kalpokaite & Radivojevic, 2019): i) research diary, ii) methodological memo, and iii) analytical memo.

6.2.1 Research Diary

It is the primary memo and uses for reflections, thinking critically about the research. It also solicited the development of the research that comprises a varied set of data collection instruments and techniques. It clarifies the assumptions, personal responses, and decision making about the research (Braun & Clarke, 2013). It is a valuable tool, prompting insights which informed a variety of methodological and theoretical decisions in relation to the research (Nadin & Cassell, 2006). It can be used to list and outline a strategic plan for the short-term and long-term development of ideas, such as move forward on certain problems, write ideas or questions develop personal views, and analyses throughout the research project (Kalpokaite & Radivojevic, 2019). For the better result in research; all researchers should use a research diary, regardless of epistemological position (Nadin & Cassell, 2006).

6.2.2 Methodological Memos

These are used to maintain the empirical value of qualitative research for the development of the conceptual framework, analytical processes, and theoretical approaches (Tracy, 2013). The researchers can elaborate on how they collected data, analyzed data, which coding cycles they used, and how they identified relations between codes (Yin, 2011; Kalpokaite & Radivojevic, 2019).

6.2.3 Analytical Memos

These are brief notes about the thoughts, ideas, and questions which the researchers realize during data gathering, coding, and data analysis. These are considered as simulation exercises and are comparable to journal entries, lab
notebooks, and blogs (Angelo & Cross, 1993). According to Adele E. Clarke analytic “memos are sites of conversation with ourselves about our data” (Clarke, 2005). These allow researchers to reflect and record on “coding processes and code choices; how the process of inquiry is taking shape; and the emergent patterns, categories and subcategories, themes, and concepts in your data possibly leading toward theory” (Saldana, 2016). Naturally, these are written both during and after data collection. These can be used for expanding the in-depth analysis of the data and going beyond explicit descriptions that provide a strong starting point from to develop a draft analysis. In qualitative research, there are no standard formats for writing analytical memos and the researchers should read like personal letters to a friend (Rogers, 2018). GT researchers have to write analytic memos to understand the themes in their data. These are helpful for thinking through how codes relate to one another (Charmaz, 2006).

6.3 Use of Memos

Memos can be used for different specific purposes, such as for the research diary, team work memo, idea memo, code memo, theory and literature memo, and research questions memo (Friese, 2014). Memos are based on coded data that can be used by both the novice and experienced researcher as a procedural and analytical strategy throughout the research process (Birks et al., 2008). These can be used to capture any reflections on how codes are generated and/or grouped, as part of ongoing consideration of the emerging categories or themes of interest and how they relate to the overall research question (World Bank Group, 2015).

7. Memo Writing

In GT, memo writing starts at the very beginning of a research. Memos make comparisons among data, codes, and categories. Memo writing is a descriptive record of analytical discussion between the researcher and the data (Khanal, 2018). Memo writing is happened when coding and continuous comparison run to identify possible patterns within the codes (Engward, 2013). It is the intermediate step between coding and writing the first draft of a manuscript (Charmaz, 2012). Memos are formal documents and need to be written in a specialized manner. In GT, interrupt the coding process again and again. Therefore, it is needed to write down memos (Glaser & Strauss, 1967). Memo writing is “putting things down on paper, which makes codes, categories, thoughts, reflections and ideas manageable and stimulates further theorizing” (Flick, 2014). According to Lempert, memo writing is “a process of writing about initial code labels that is used to conceptualize the ‘properties’ and ‘dimensions’ of codes and aid in theoretical development” (Lempert, 2007).

Memo writing is a vital component to GT research, and it is continuously conducted throughout the data collection and analytical processes. It moves the researchers to explore and scrutinize their codes, categories, and emerging GT (Charmaz, 2014). Theoretical memos are written throughout the coding process to track conceptual decisions and ideas as they are occurring. Memos can be written i) when a researcher decides to combine or split codes, ii) when s/he wants to write conceptual notes about how the codes tell the storyline, or the context in which a certain code could be applied (Stuckey, 2015).

To keep record of the development of the qualitative research, the researcher should write memos throughout the research. They also use memos to track changes in the development (Morse & Richards, 2002). During the coding, memos can be written to identify possible patterns in and between the codes (Engward, 2013). On memo writing, Charmaz straightforward asserts “memo writing encourages you to stop, focus, take your codes and data apart, compare them and define links between them” (Charmaz, 2014).

Memo writing is a fundamental process to develop a GT research, regardless of the version of GT that is used (Lincoln & Guba, 1985). It is needed to facilitate the process of theory development (Baker-Korotkov, 2020). In GT, memo writing is considered as the intermediate step between coding and writing the first draft of a manuscript that speeds analytic momentum (Clarke, 2005). It is the leading step between data collection and writing of research papers. It is a crucial method in GT, as it tries to analyze the collected data and codes that are collected (Glaser, 1998; Charmaz, 2006). Memo writing throughout the research study contributes to an audit trail to demonstrate how the study is conducted and explicate how the theory is developed (Lincoln & Guba, 1985).

Memo writing starts during the early coding and continue until to reach in most sophisticated analysis of a category. Hence, it engages a researcher in sustained and successive analysis to create categories (Charmaz, 2011). Charmaz advises the GT researchers that the best approach to memo writing is to “do what works for you” (Charmaz, 2006). A researcher can use pen and paper, a computer program or voice recorder is a personal choice for memo writing (Clarke, 2005). On the other hand, Strauss and Corbin stress on indelible, secure and easily retrievable memo writing (Strauss & Corbin, 1998).

The purpose of memo writing is for observing how the coding process and code choices taking shape in the research. Also to observe the emerging patterns, categories and subcategories, themes, and concepts in the data how they are leading towards theory (Saldana, 2016). In qualitative research, memo writing has four properties: i)
the ideas expressed bring the data to a conceptual level, ii) memo writing facilitates the sorting and reworking of ideas, iii) a catalogue of memos is created that serves as a source for writing up theory, and iv) the inventory of memos serves as a source of writing theory (Engward, 2013; Baker-Korotkov, 2020).

Theoretical memos are written throughout the coding process to track conceptual decisions and ideas as they are occurring and served as the basis for writing the GT during the final phase of the analysis (Lacey & Luff, 2009). At the beginning of research, memo writing should be simply and descriptively, but later writings should be more substantive and abstract (Corbin & Strauss, 2008).

7.1 Stages of Memo and Memo Writing

Memo writing is essential to the GT research, as it is the fundamental process by which researchers engage with the data, the result of which is a GT. Within GT, memos are visible in three stages as: i) initial memos, ii) advanced memos, and iii) integrated memos (Lempert, 2007; Groen et al., 2017).

7.1.1 Initial Memos

These capture the exploration and development of qualitative codes, and provide direction for future data collection. These are used to acquire knowledge and ideas during the exploration of participant perspectives (Charmaz, 2010; Groen et al., 2017). Researchers can use initial memoing during open coding to help conceptualize incidents, and then follow theoretical memoing to transfer between substantive codes and theoretical codes (Glaser, 2005). Instead of using memos for organizing a project, some researchers suggest for purely analytic memos (Charmaz, 2006).

Sometimes memos are used to develop for growing categories (Charmaz, 2006). In some cases, memos are used from the very beginning of data collection and run to the end of the research. However, qualitative researchers can adapt different memoing strategies according to their methodology and research aims (Miles et al., 2014).

7.1.2 Advanced Memos

These memos identify, trace, and describe the supporting assumptions, emerging changes, and practical applications of categories throughout the data analysis. These are used to provide a space to freely write reflective thoughts, ask and answer questions, and identify gaps in the data (Charmaz, 2014; Groen et al., 2017).

7.1.3 Integrated Memos

With these memos the researcher begins to integrate codes, categories, and prior memos to enhance theory development. These are used to provide a space for theory abstraction and integration through drawings and discussion (Charmaz, 2017; Groen et al., 2017).

7.2 Benefits and Importance of Memo Writing

Memos can facilitate research teams. Memo assists both the new and experienced researchers in making conceptual leaps from raw data to those abstractions that explain research phenomena (Punch, 2000). By the use of memos, the researcher can capture the collected data, and can explore the meanings of the data holds, and also continuously maintains freshness to conduct research (Birks et al., 2008). Without proper memoing, GT researches will be substandard. A researcher, who is able to realize the significance of memoing from the outset of his study, will find the final stages of his research (Clarke, 2005). Memos are very important in GT research. These ensure the emerging theory in qualitative research whether the research will be supreme or not. Therefore, memos have greater values for developing a substantive theory (Sandgren et al., 2006).

Memos are the media which tie together the concepts for a GT for a paper or a book. These ensure the quality of the emerging theory (Glaser, 2013). Writing memos can help the researcher to explore similarities and differences in the data that are not done during the establishment of the codes (Stuckey, 2015). Memos are useful to clarify thinking on a research topic. These provide a mechanism for the enunciation and subjective perspectives about the area of research (Glaser, 1978). Memos provide the novice researchers to acquire skills for developing their personal style of GT research (Birks et al., 2008). These are important in the early stages of data analysis. Later, these can become theoretical tools (Thomson et al., 2014). Creation of a record in the form of memos ensures the preservation of thoughts, feelings and impressions that may later prove significant (Polit & Beck, 2006).

Memo writing advances the analytic work and accelerates the productivity (Charmaz, 2006). In GT research, memo writing is essential, as memos make speedy the researchers to analyze and code data and to convert categories in the coding process (Lempert, 2007). Memo writing helps the researchers to generate concepts and categories (Bryman, 2012). Glaser believes that memo writing is essential “to record ideas, get them out, and the analyst should do so in any kind of language-good, bad or indifferent” (Glaser, 1978). It is a crucial method in GT. It accelerates the research and it works throughout the entire research (Charmaz, 2006).

8. Conclusions and Recommendations
Grounded theory is an established qualitative approach in the social sciences. In GT study, memo writing is an essential basis to prepare a successful research. In this study we have realized that memoing is a tool that can be used for conducting qualitative research. Memos permit the exploration of the paths of various qualitative researches. Without the use of memoing the qualitative research will face lack of strength. With the help from the process of memoing a researcher can develop theory throughout the process of open, axial, and selective coding.

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