Making Meaning: The Creative Component in Qualitative Research
Anita Hunter, Paula Lusardi, Donna Zucker, Cynthia Jacelon and Genevieve Chandler

Qual Health Res 2002; 12; 388
DOI: 10.1177/104973202129119964

The online version of this article can be found at:
http://qhr.sagepub.com/cgi/content/abstract/12/3/388

Published by:
SAGE Publications
http://www.sagepublications.com

Additional services and information for Qualitative Health Research can be found at:

Email Alerts: http://qhr.sagepub.com/cgi/alerts
Subscriptions: http://qhr.sagepub.com/subscriptions
Reprints: http://www.sagepub.com/journalsReprints.nav
Permissions: http://www.sagepub.com/journalsPermissions.nav
Making Meaning: The Creative Component in Qualitative Research

Anita Hunter
Paula Lusardi
Donna Zucker
Cynthia Jacelon
Genevieve Chandler

Findings in qualitative research are often wondrous and exciting, expounding new knowledge and perceptions previously unknown. Qualitative research requires the researcher to ponder and reflect on the data collected so as to find the meaning within. Helping researchers learn how to perform this step is not well discussed in the qualitative literature, yet this is one of the more crucial components of this type of research. In this article, the incubation, the meaning-making phase of qualitative research, is discussed in relation to the experiences of five researchers who have used traditional processes, models, metaphors, plays, pastiche, poetry, and quilt making and design to help them make meaning.

There is magic within the method of qualitative data analysis. Literature demonstrates the difference between factually reported, dry results and the insight that occurs in elegant qualitative studies, but little is written about how this elegance occurs. Morse (1994) said it involved a creative leap, incorporating intuition and imagination, within an environment in which creativity is able to flourish. Sandelowski (1994) believed such a leap should also include a sense of playfulness, with the whole experience often being inchoate and incommunicable. There is a growing consensus that understanding or using a prescribed method of analysis is not enough to generate new and novel insights. One tends to “kill the muse . . . by overscrutinizing her” (Besmer & O’Quinn, 1993, p. 398), and finding magic in science is less than satisfactory. Our goal in this article is to shed light on the magic of understanding the mysteries within data by examining the experiences of four researchers who have created meaning from their data.

Bringing creativity to science is reflected in the well-known cartoon that shows two scientists standing side by side discussing a complex mathematical problem. On one side of the blackboard is Step 1, the formula, and on the other side is Step 3, the answer. The middle section, Step 2, that idea-generating and calculation
process, is blank. In its spot is a single phrase: “Then a miracle occurs.” The more senior scientist exclaims, “I think you should be more explicit here in step 2!”

Step 2 is the “aha,” where one makes meaning beyond the facts. However, researchers often do not give themselves the time necessary to achieve the aha because they are too involved in completing the research tasks. The four-step process of creativity—insight, saturation, incubation, and verification (Amabile & Tighe, 1993)—is similar to the research process of problem identification, literature review, methods, and results. However, the incubation phase is not legitimately recognized in the research literature. Incubation is the process of living and breathing the data, by which the researcher tries to understand its meanings, find its patterns, and draw legitimate yet novel conclusions. It is described as the intellectual chaos phase. Within this chaos, however, there are techniques that provide structure. In the following paragraphs, the incubation phases of five researchers are described, moving from the incubation creativity of the traditionalist analyst to the most creative analogies, evidenced by metaphors, poetry, plays, pastiche, and quilt design.

MEANING MAKING FROM A TRADITIONALIST PERSPECTIVE: DR. PAULA LUSARDI

As a traditionalist, I find meaning by using the processes of labeling phenomena, identifying and classifying emerging concepts, interrelating concepts with hypothesis generation, and recognizing the patterns of meaning for possible theory generation. Four assumptions underlie my approach: (a) meaning making exists at the interface of analysis and interpretation; (b) this approach is an iterative process, rather than a linear one; (c) each phase may not be made explicit in every qualitative approach; and (d) meaning making in nursing science is clarified and augmented through reflection on and integration of philosophy, theory, method, question, and practice (Schatzman & Strauss, 1973; Taylor & Bogdan, 1984).

The ability to make sense of data or generate seminal ideas is attributed to the researcher’s closeness to or immersion in the data. Most qualitative researchers would concede that the social meanings people attach to the world around them are tied to a particular perspective and context. These perspectives influence how a researcher views the social context, focuses on and reacts to a situation, and, finally, analyzes, interprets, and creates meaning from data and text. Key to meaning making in qualitative work is an awareness of one’s own worldview and perspectives while in dialogue with persons in their natural setting. For example, using symbolic interaction as my framework, I described intensive care unit (ICU) patients’ thinking as they experienced varying levels of consciousness. This person-environment interaction yielded information about the impact the environment has on an individual’s thinking and reactivity. The findings are relevant to creating an ICU environment that is less detrimental to the patient. If I had chosen another framework, such as stress, crisis, or information-processing theory, my research would have yielded very different results. These frameworks, often used in quantitative research, yield dry statistical results rather than demonstrate the dynamic interaction of people and environment.

The unit of analysis, an entity from which descriptions and measurements are made, is also important in meaning making. The unit of analysis may be a client, a
dyad group, or a community, to name a few. Understanding the unit of analysis is key in the analysis and interpretation of data and in the subsequent meaning making. In the ICU study, the focus was the nurse-patient dyad and the way this relationship either facilitated or impaired patient thinking and affected the impact of the ICU environment. If I had focused on the patient alone or the group of ICU nurses, then analysis, interpretation, and emergent meaning would have looked quite different.

Data gathering and inquiry are tied to the researcher’s philosophical and theoretical perspective, research aims, and unit of analysis. Understanding the aims and questions of inquiry and the impact of dialogue with persons in their natural setting will reveal nuances of meaning from which these questions are forged. In my work, symbolic-interaction theory framed the questions that helped patients elicit responses that described their thinking throughout the ICU stay.

The most fundamental and consequential operation of making meaning from data is the identification and classification of significant concepts. Analysis of the dialogue and participant observations can enable the researcher to identify the concepts evident in a situational context. These concepts are generalized from the empirical data and are used to illuminate contextually social processes and phenomena that are not always apparent in specific instances. Whatever the level of abstractness or breadth of scope, meaning of concepts is directly tied to the data. Words or phrases that participants use capture the meaning of what they say or do; however, not all concepts have the same significance of meaning in the social context being studied. Reflection on philosophical and theoretical viewpoints may clarify or provide insight into the conceptual meanings emerging from the data. Such reflection occurs within the incubation period, the meaning-making period inherent within the traditional qualitative interpretive approach.

The extensive reflection on the data used in my traditionalist approach helped me gain a richer understanding of patients’ thinking processes in their varying phases of consciousness within the ICU experience. These findings have contributed to the beginning development of a consciousness theory specific to the intensive-care patient. Although the qualitative analysis process of the traditionalist may not seem as creative as the following meaning-making approaches, creativity exists in one’s philosophy, theoretical framework, unit of analysis, methods of inquiry, and concept development; if designed appropriately, it assists the researcher in that aha that occurs in analysis.

CREATIVITY IN CASE STUDY ANALYSIS—MAKING MODELS: DR. DONNA ZUCKER

Often, researchers combine traditional and creative analytical processes. I used the case study method for my research. This is a qualitative method that involves the intensive exploration of a single unit of study such as a person, family, group, or community (Miles & Huberman, 1994). Such intensive exploration yields a plethora of data, the richness of which may get lost in the traditional processes of coding, categorizing, and thematic identification. Making meaning of two patients’ experiences of coronary heart disease (CHD) was achieved by creating event and thematic maps or models of their experiences. These maps were important for me to be able
to visualize the journeying nature of chronic disease and the patients’ movement from their perceptions of self before the illness to self as a chronic-care patient.

The first map helped me make sense of the research related to living with chronic CHD and the nature of this experience. Each researcher’s philosophy about people coping with chronic disease influenced the interpretation of their research findings. The map I created reflected the varying philosophies such as social construction, medical sociology, existential analysis, and symbolic interaction. Making meaning of this immersion in the literature was possible through mapmaking, and this facilitated my decision about the frameworks I would use for my research (see Figure 1). I was able to make meaning of the patients’ description of events, situations, and interactions with others and themselves by layering various models of qualitative analysis with symbolic interaction theory (Bromley, 1986; Burbank, 1988; Miles & Huberman, 1994).

The second map was developed during the data collection phase. As I noted patterns and clustered concepts, made metaphors and comparisons, and noted relations between variables, the mapping of these findings helped build a logical chain of evidence and conceptual/theoretical coherence. The map helped me visualize the different time trajectories that existed in Bernie’s and Ed’s journeys through their health, illness, and cardiac experiences.
Finally, during the coding phase in the analysis process, the use of the mapping or modeling format revealed a three-dimensional table that reflected the words, themes, and ideas of my patients, their spouses, and the medical professionals involved in their care. Using my models and Burbank’s (1988) three-level hierarchical meaning framework, I was able to extract and compare the meaning of the words and symbols; the meaning of people, events, and situations; and the meaning of life as a whole for these two patients.

I am a visual learner, and the maps I developed contributed to my ability to visualize the aha necessary to make meaning of Bernie’s and Ed’s experiences. It became evident that these two gentlemen experienced more variation in their patterns of living with chronic CHD than previously reported in the literature. Their patterns were influenced by their emotional state, support system, outlook on life, health beliefs, and time orientation states. Ed was always trying to find the “quick fix,” as opposed to engaging in behavior-changing activities necessary to live with this condition. He was the “30-year man,” living with CHD but denying its existence. On the other hand, Bernie was stuck in the “early days,” refusing to change while living with CHD. In both cases, the patients’ past experiences, support systems, and ways of coping with life influenced their CHD journey. The literature did not address the consequences of past experiences, decision making, and actions required for living with a chronic illness; rather, it focused on symptoms. But symptoms do not reflect the unique landscape on which the patient’s life is painted.

The model making or mapping approach in this case study analysis was critical to my visualization and understanding of Bernie’s and Ed’s journeys. Prior to this study, it was evident that gaps in treatment were noted relative to cardiac rehabilitation, psychological counseling, occupational rehabilitation, and ongoing integration into a health promotion model of care. The findings from this study have led to recommended alterations in the existing treatment model for chronic CHD.

METAPHORS AND THE VISUALIZATION OF ADOLESCENT RESILIENCE: DR. ANITA HUNTER

I have used phenomenology to explore the concept of resilience in adolescents. Coding, categorizing, and thematic identification were some of the traditional processes used during the analysis phase; however, the messages I kept hearing from the adolescents were not adequately captured through these traditional processes. The use of metaphors to capture the tenor of the voices of these adolescents brought life to my findings.

A metaphor uses figurative language to suggest a likeness to or analogy of an idea (Burns & Grove, 1995). It provides a strong visual image, one that is powerful in communicating meaning. My phenomenological exploration of resilience in adolescents across national and international sites such as the United States, Northern Ireland, and Ghana, West Africa, uncovered new dimensions to the concept of resilience in adolescents. My research findings indicate that being resilient means something different to the adolescent than what has been previously understood. Being resilient can leave scars, as many teens overcome the adversities in their lives by disconnecting from relationships and insulating their emotions (protective resilience) or by running away, acting out, and using aggressive behaviors to be heard (survival
resilience). Historically, resilience has meant overcoming adversity without incurring negative consequences. Some adolescents, given the right environment and protective factors, are able to traverse such adversity in ways that promote optimal growth and development (optimal resilience). However, many adolescents, in the process of their development and the immaturity of their thinking and coping abilities, often overcome adversity in ways that can leave scars.

Triangulated research methodology, integrating quantitative with qualitative methods, was a data-gathering process that provided a rich base for capturing the meaning of resilience to adolescents. Such qualitative approaches as creative-writing experiences to help teens express themselves, focus groups to encourage discussion, interviews to hear individual stories, and journaling and participant observation to record the nonverbal messages all provided information about what the teens believed in ways that cannot be secured by quantitative methods alone. Yet despite the qualitative information, I could not capture the emotive constituents of the concept of resilience in the world of the adolescent. Metaphors provided the form of expression needed to understand and communicate these constituents.

Valliant (1993) described resilient children as mended “Humpty-Dumpties.” It became apparent that such a metaphorical label was appropriate, but it still was incomplete. There is an action component of resilience that was not addressed by this metaphor. But one day, while standing on a beach in Ghana after completing hours of data gathering and immersion in the reflective process, time spent thinking about what the teens were trying to say about themselves and their resilience, I saw a storm brewing on the horizon. It moved rapidly, changing the serene setting into a tumultuous scene, churning up the landscape, ripping the foliage from its roots, and bending and breaking trees along the coast. As frightening as the storm was, it prompted one of those magical times when things became crystal clear, when an aha occurs. I could “see and feel” the varying types of resilience these adolescents were describing. The storm, the trees, and the landscape became the metaphors that so richly reflected the adolescent voices about their beliefs, their lives, and their resilience.

The adversities present in the lives of my adolescents were represented by the storms of nature. The storm’s approach, like adversities, might be subtle or sudden. Its impact is gentle, chaotic, or terrifying. The teens’ reactions to adversity are similar to people’s reactions during a storm. They can turn their backs until the worst is over, run away to find cover and protection, or run for their lives. The outcome of adversity, like the outcome of a storm, produces change. These changes may be temporary or permanent and may be hurtful or helpful.

The resilience demonstrated by the adolescents was reflected in the trees’ responses to the storm. Some bend and rebound; they have strong roots and flexible trunks that resist the effects of the storm. These were the teens who saw adversity as a challenge, grew as a result of that experience, and had solid, extensive support systems to help. These were the connected, flexible, and optimally resilient adolescents.

Some trees bend and continue to bend into permanent positions so as not to break. The trunks are not quite flexible, and the root system is not strong. The tree is distorted, more vulnerable than before but still viable. However, there is the potential for the tree to break if the next storm is significant. These were my self-protecting resilient adolescents. They stood on their own and overcame adversity in ways that protected them from the pain, frustration, and lack of trust in their lives.
Some trees broke because they could no longer manage the stress. Their branches or trunks were too weak or eroded to sustain the assault; however, these trees are not dead, for they sprout new leaves in the spring despite their damage. These were my silent, angry, aggressive, and surviving resilient adolescents. They overcome adversity in whatever way helps them survive, not ready to give up on life but often remaining damaged and broken trees.

Finally, some trees develop terminal lesions but do not succumb for years. They are distorted and unhealthy, and they eventually die. Their trunks are diseased, and their roots have withered. These are the adolescents who have had to protect themselves or survive for so long they are no longer resilient but have developed psychosocial pathology and other impaired responses to adversity.

Using metaphors was the magic that helped me make these research findings visceral for others. It was a mechanism that helped me impart the emotions, voices, and messages of these 300 adolescents. Understanding the concept of resilience in adolescents is critical to the development of appropriate interventions for fostering the development of this quality. Understanding came to this author through the metaphor of the storm. It has become apparent that resilience for adolescents encompasses several dimensions. Assisting the adolescent to move from surviving and disconnected resilience to connected optimum resilience is necessary to prevent potential psychosocial maladaptation.

THE MAGIC IN GROUNDED THEORY:
DR. CYNTHIA JACELON

Regardless of the methods, such as grounded theory, case study, phenomenology, or others, data must be understood and interpreted. However, the interpretation of the data and the creativity employed to help the researcher uncover the meaning enhances that understanding for both the researcher and the reader. Atkinson (1992) pointed out that in ethnography,

> the field is produced through social transactions with the researcher, the boundaries of that field are created by what the researcher encompasses in his or her gaze, is constructed by what the researcher writes, and reconstructed, recontextualized by the reader. (p. 9)

For research descriptions to be thick and rich, researchers must be able to view their data from several perspectives. The more experience they have in multidimensional thinking, the more ways of making meaning they have at their disposal. In the classic science fiction novel Flatland (Abbott, 1884/1987), Mr. A. Square was astounded by the possibility of a three-dimensional universe. He asked, “Why stop at three? Why not four, five, or more?” In qualitative research, it is essential that one ask what techniques can be used to open the researcher’s perception to multiple meanings and perspectives.

My study focused on understanding the experiences of elderly women and the process of “vital aging.” As a rehabilitation nurse specialist, I have witnessed the difference in recovery for those patients who vitally age and those who do not. What is vital aging? Using varied strategies to make meaning from the data, I was able to develop an understanding of this phenomenon. There are several techniques that
were useful to me in constructing the meaning derived from the field and conveying that meaning to the reader. I have used plays, poetry, pastiche, quilting, and mobiles to help me construct the magic in the phenomenon of vital aging.

Making meaning of data is very much like making magic. According to Kerr (1990), magic is "the art of producing changes in consciousness at will and using these changes to expand the consciousness." To capture the meaning, the gestalt, of the data, one must tap into the creative, magical self. The magical tradition teaches that one does not necessarily need to move in a straight line to reach one’s destination. Trying to understand and explain the experiences of aging as told to me by my subjects was not possible through linear thinking. For me, nonlinear thinking was achieved through the creation of a quilted wall hanging. First, I sat at my computer and created a memo that attempted to explain the essence of these women’s experiences, which I had been trying to grasp. From the memo, I created a paper pattern for a quilt that would reflect my thoughts. The quilt was then created with fabrics, textures, and colors that represented my paper creation. Sommers (1997) viewed the quilt as a metaphor of process. This process allowed me to "feel" the gestalt and my participants to "see" their gestalt. I found it became the most significant experience in my work.

To further understand the gestalt, I wrote a play. This was useful for creating a picture of action or meaning through dialogue. Ely, Vinz, Downing, and Anzul (1997) described drama as useful for helping the researcher make meaning from data and to convey meaning to the reader. The dialogue for my play came from the field notes accumulated over a course of 14 weeks of data collection and participant checking. To reflect the patterns of a participant’s speech, I used a method described by Patai (1988) whereby lines of transcription are broken according to the individual’s speech patterns. I used broken lines to reflect the pauses and inflections of the participant’s speech. The results conveyed both the words and the emotions of the speaker.

All of the data about seating arrangements at the table at which the support group met was constructed into a play so that I could understand the phenomenon, which was mentioned in many contexts over the course of the data collection period. The play consists of the prose transcriptions of the actual words of the women across the data collection period. After reading the play, I had a clearer picture of the meaning of the seating arrangements, the order of discussions among the women, their reaction to my presence within the group, and the absence of members, and this brought to the forefront evidence of the variables affecting these women’s lives and their vital aging process. Isolation, depression, lack of support, fear, humor, perseverance, and the need for order were the identified concepts integral to their lives.

Further illumination of the data was achieved through the use of a pastiche, an artistic piece that consists wholly or chiefly of motifs or techniques from borrowed sources. The pastiche invites the reader into paradoxical stances, showing them two viewpoints simultaneously within the limitation of the layout of the printed text (Ely et al., 1997). The pastiche becomes a field of play that lacks a center and has no single meaning. I put together a pastiche about one of my subjects and her relation to the other women in the group and found the codes I had developed from analyzing the data were greatly enhanced when I reexamined the data from this perspective.
The women who participated in this research are living their lives day-to-day. Most had a sense of humor about themselves and were able to have compassion for those who did not. The major themes of vital aging of elderly women were overcoming losses, independence and adventure, historical context and personal history, personal present, family, humor, and gossip. The metaphor I found that best explained these women is "adventurers," going boldly forth into the unknown future, the first generation to live so long in such numbers.

Whatever techniques I as the researcher used, they had to be consistent with the overall theoretical base of my research. However, the more creative the strategies for making meaning are, the more magic will happen. I believe magic occurred within this qualitative data analysis.

FROM SATURATION TO ILLUMINATION:
DR. GENEVIEVE CHANDLER

The previous works represent the creativity one can use to make meaning from qualitative data, whether that be creativity from the traditionalist stance or creativity as the magic found in metaphors or plays, quilts or pastiche. Strategies for creativity take time and require incubation for new ideas to percolate. Insight into the incubation of data is critical to the final theoretical revelations. Unfortunately, because incubation is not a recognized phase in the research process, it has been difficult to articulate the insights that occur between fact finding and discussion.

As observed in the previous examples, the aha, the path to illumination, does not just happen. The creative leap is at best a wish, more likely an illusion. The creative person does not leap to illumination. Extensive preparation is required to lay the groundwork for one to be creative. The creative relevant skills include styles, characteristics, strategies, and courage. Amabile and Tighe (1993) recognized creative relevant skills as an independent and nonconforming orientation, risk-taking ability, tolerance for ambiguity, perseverance, breaking through the received view, and techniques for generating novel ideas.

Though researchers may come prepared, be motivated, and be committed to their areas of research, there are still barriers to creativity. Structural barriers are psychological, cultural, and environmental blocks (Ross, 1981). The psychological barriers include (a) preference for the predictable and orderly and intolerance for the unknown and ambiguous, (b) desire for quick success and unwillingness to let ideas incubate and develop, and (c) valuing of sensory perceptions (that which is) over intuitive perceptions (that which is possible). Culturally, a high value is placed on logic, reason, and numbers. Feeling, intuition, and fantasy are not part of the scientific quest. Environmental barriers range from the time crunch of deadlines to the lack of solitude in daily life.

Our own biology and education can be a barrier to creativity. Cameron (1992) suggested that “creativity is our true nature, the blocks are an unnatural thwarting of a process at once as normal and as miraculous as the blossoming of a flower at the end of a slender green stem” (p. xiii). The science in the research can be a hindrance to natural creativity. When we conduct research, the left brain is usually engaged in focusing, organizing, and anticipating every detail in the investigation, a result of years of educational training. For interpretation to occur, results must be (re)pre-
sented and (re)organized (Sandelowski, 1994). For interpretation to be infused with creativity, the logical, analytical, symbolic, verbal, and linear left brain must be set aside and the relational, intuitive right brain must take over. The right brain’s perceptual, intuitive, spatial, and global activities that are usually reserved for the arts and humanities must be invited in through strategies and techniques that set the stage for creativity and allow the daydreams and fantasies of the researcher to enter the conscious. The strategies presented in the previous articles reflect right-brain creative dominance over left-brain reasoning.

In conclusion, for the miracle to happen and the aha to occur, it is critical that incubation time be given and that creative skills to achieve illumination be provided. The aha is based on the outcome of the incubation phase during which one is willing to take risks, tolerate ambiguity, and persevere. For creativity to flourish, a structure that psychologically, culturally, and environmentally encourages innovation must be developed. In the previous paragraphs, the four researchers demonstrated they were immersed in the discipline, in the research, and had the courage to step out of the prescribed box allowing the incubation period to facilitate the magical world of creativity, encourage the emersion of novel concepts and perceptions, produce new knowledge, and contribute to the science and discipline of nursing.

REFERENCES

Anita Hunter, Ph.D., C.N.S., C.P.N.P., is an assistant professor at Clemson University, South Carolina.

Paula Lusardi, Ph.D., R.N., is a critical care C.N.S. at Baystate Medical Center, Springfield, Massachusetts, and an adjunct graduate faculty member, University of Massachusetts, Amherst.

Donna Zucker, Ph.D., R.N., is a clinical assistant professor at the University of Massachusetts.

Cynthia Jacelon, Ph.D., C.R.R.N.-A., is a clinical assistant professor at the University of Massachusetts.

Genevieve Chandler, Ph.D., R.N., is an associate professor at the University of Massachusetts.